Traffic Control Signal Needs Study

Existing and Future Conditions at Waxpool Road and Waxpool Road Center Western (Main) Entrance

Loudoun County, Virginia

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INTRODUCTION

The following report presents the findings of a traffic control signal needs study, traditionally referred to as a signal warrant analysis, for the Existing (2008) and Future (2010) Conditions at the intersection of Waxpool Road and the Waxpool Road Center Main Entrance located in Loudoun County, Virginia. The intersection is located approximately 800 feet west of the Loudoun County Parkway and Waxpool Road intersection. Traffic conditions and physical characteristics of this location were considered to determine if the installation of a traffic control signal would be justified under the existing conditions. A regional map showing the site location is included in **Figure 1.**

Scope of Study

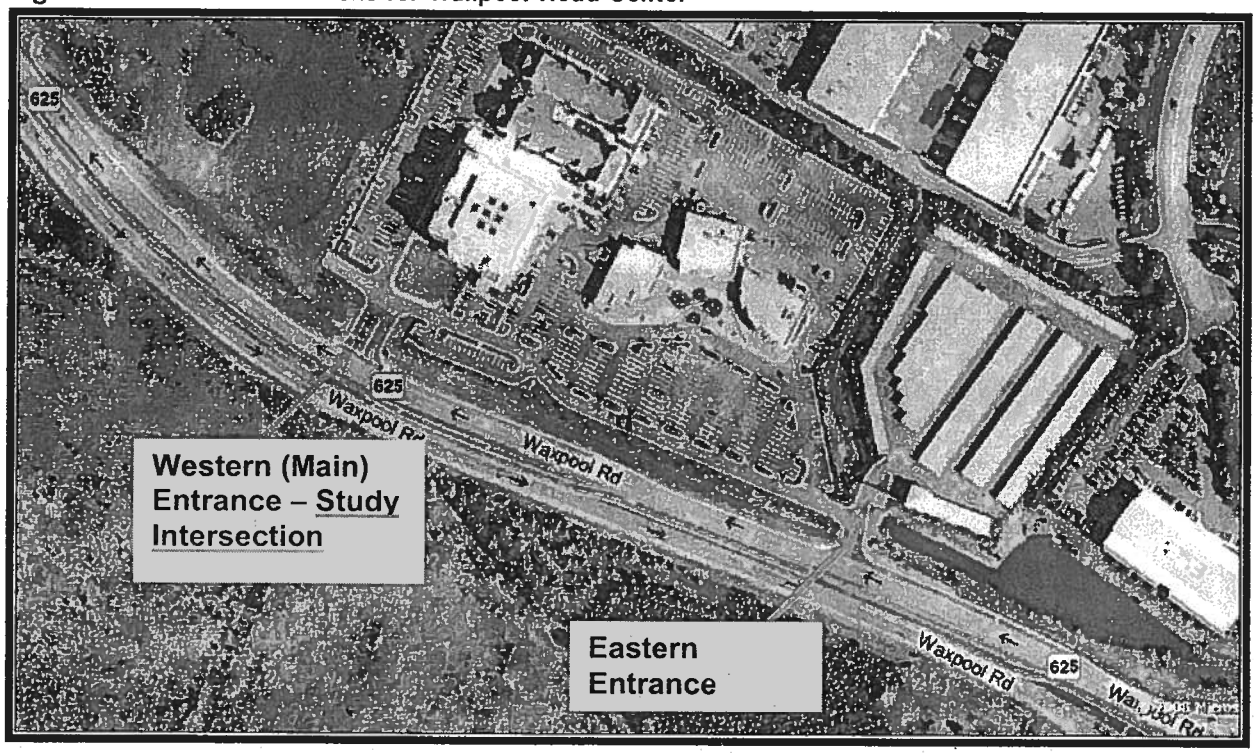
The following intersection was identified for inclusion in this study:

1) Waxpool Road and the Waxpool Road Center Main Entrance

The results of the signal warrant analysis associated with this intersection are presented in the Conclusion section of this report.

Figure 1A: Regional Map and Site Location

Figure 1B: Entrance Locations for Waxpool Road Center



Methodology

The following section presents the detailed evaluation of the traffic signal control warrants for the intersection of Waxpool Road and the Waxpool Road Center Main Entrance located approximately 800 feet west of the Loudoun County Parkway intersection under existing conditions. The signal warrant analyses were performed following the procedures outlined in the Federal Highway Administration (FHWA) 2003 Edition of the Manual on Uniform Traffic Control Devices (MUTCD). Traffic signal warrant studies recommend 16-hour traffic volume counts classified by vehicle type, pedestrian volume counts classified by age, 85-percentile speed of vehicles, and collision diagrams showing accidents. The criterion of each warrant was evaluated using the information obtained for the existing intersection.

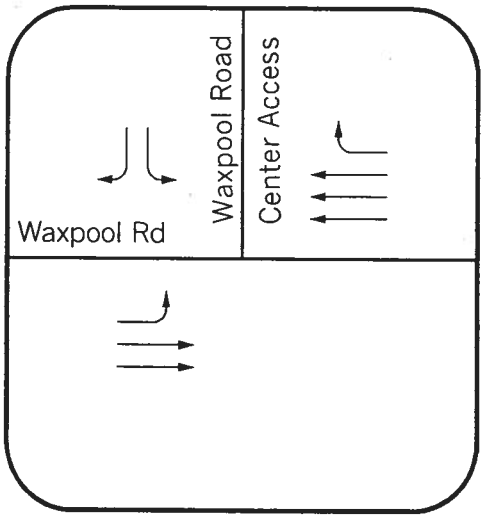
Existing Conditions (2008)

Existing Roadway Network

A description of the existing roadways within the study area is presented below:

- Waxpool Road is a four-lane, east-west, median divided roadway with turn lanes and a posted speed limit of 45 mph.

The existing lane configuration at the study intersection is illustrated below:



Existing Traffic Volumes

In order to determine the weekday peak hour traffic volumes, 24-hour counts were conducted on Waxpool Road and the Main Entrance from Tuesday May 27, 2008 until Sunday May 31, 2008 and on Tuesday May 6, 2008 through Friday May 9, 2008. Waxpool Road is a major east-west corridor. Hence, traffic volume along Waxpool Road is not the deciding factor for the signal warrant study. The traffic volume produced by the Waxpool Road Center is the 'key' factor in triggering the need for a traffic signal. Based on the outbound traffic volume along Waxpool Road Center driveway, the peak hours were revaluated. The revised peak hours based on the traffic volume along Waxpool Road Center driveway are given below:

- AM Peak Hour – 7:30 AM to 8:30 AM
- Midday Peak Hour – 12:45 PM to 1:45 PM
- PM Peak Hour – 5:30 PM to 6:30 PM

The existing eight heaviest hourly traffic volumes at the intersection of Waxpool Road and Waxpool Road Center Main Entrance are shown in **Table 1** with the existing AM and PM peak hour volumes at this location shown in **Table 2**. The detailed traffic counts are included in the Technical Appendix.

Table 1: Existing Conditions – Eight Heaviest Hourly Traffic Volumes for an Average Day

Hour	Traffic Volumes (vehicles per hour)			
	Waxpool Road			Waxpool Road Center Main Entrance
	EB	WB	Both Approaches	(Higher approach)-OB
7:30 to 8:30 AM	2015	952	2967	87
11:45 to 12:45 AM	1346	1355	2701	113
12:45 to 1:45 PM	1416	1382	2798	140
1:45 to 2:45 PM	1346	1495	2841	120
5:30 to 6:30 PM	1386	2556	3942	121
6:30 to 7:30 PM	1082	2220	3302	98
7:30 to 8:30 PM	944	1559	2503	108
8:30 to 9:30 PM	765	1020	1785	99

*OB – Outbound traffic only

Table 2: Existing Conditions – AM, Midday and PM Peak Hour Traffic Volumes for an Average Day

Hour	Traffic Volumes (vehicles per hour)	
	Waxpool Road	Waxpool Road Center Main Entrance
7:30 AM – 8:30 AM	2967	87
12:45 PM – 1:45 PM	2798	140
5:30 PM – 6:30 PM	3942	121

Right Turn Volume and 12-hour Turning Movement Counts

The comments received from VDOT via email on the traffic signal warrant study dated June 18, 2008, outlined that:

> 12-hour turning movement counts should be conducted at the study intersection, and
>
> The right turn traffic should be appropriately accounted for
>
> ***After reviewing the February 03, 2009 signal warrant study, VDOT has principally agreed that a signal is warranted at the study intersection, however it will be conditionally approved, only if the median break at the eastern entrance is closed.***
>
> ***The signal warrant has been subsequently revised based on VDOT's condition and recommendation.***

The 12-hour turning movement counts were conducted at the study intersection on January 29, 2009. The traffic distribution for the outbound traffic was evaluated for the 12-hour counts. The counts reveled that for the outbound traffic has a 50%-50% split between the traffic turning left and right. The 50-50 split was applied to the outbound traffic counts shown in table 1. The 12-hour turning movement counts conducted on January 29, 2009 were not used in this analysis due to the reasons cited in the '*Appendix A: Traffic Counts Analysis*' section presented in the appendix. Table 3 below shows the traffic volumes for the minor approach split by movement.

Table 3: Existing Conditions – Eight Heaviest Hourly Traffic Volumes for an Average Day

Hour	Traffic Volumes (vehicles per hour)					
	Waxpool Road			Waxpool Road Center Main Entrance		
	EB	WB	Both Approaches	Left (OB)	Right (OB)	Total (OB)
7:30 to 8:30 AM	2015	952	2967	43	44	87
11:45 AM to 12:45 AM	1346	1355	2701	56	57	113
12:45 to 1:45 PM	1416	1382	2798	70	70	140
1:45 to 2:45 PM	1346	1495	2841	60	60	120
5:30 to 6:30 PM	1386	2556	3942	60	61	121
6:30 to 7:30 PM	1082	2220	3302	49	49	98
7:30 to 8:30 PM	944	1559	2503	54	54	108
8:30 to 9:30 PM	765	1020	1785	49	50	99

*OB – Outbound traffic only

The revised alternative to this analysis will assume that the eastern entrance to the site will operate as a right-in-right-out intersection. Therefore, the existing left turning volumes at this intersection have been rerouted in order to utilize the main entrance, turning left at Waxpool Road Center Main Entrance. The following Table 4 below shows how the left turning volumes have been derived:

Table 4: Existing Conditions – Rerouted Left Turning Movements

Waxpool Road Center Main Entrance+ SB* left turn traffic from Eastern Entrance

Time	Left-A	Factor-B	Peak Hour Volumes at Eastern Entrance -C	Rerouted Left Turn Volumes-(D=B*C)	Existing + Rerouted Left Turn Volumes- (A+D)
7:30-8:30 AM	43	1.000	3	3	46
11:45-12:45 PM	56	1.302	3	4	60
12:45-1:45 PM	70	1.167	13	15	85
1:45-2:45 PM	60	1.000	13	13	73
5:30-6:30 PM	60	1.000	13	13	73
6:30-7:30 PM	49	0.817	13	11	60
7:30-8:30 PM	54	0.900	13	12	66
8:30-9:30 PM	49	0.817	13	11	60

*OB – Outbound traffic only

Table 5: Existing Conditions – Revised Eight Heaviest Hourly Traffic Volumes for an Average Day

Hour	Traffic Volumes (vehicles per hour)					
	Waxpool Road			Waxpool Road Center Main Entrance		
	EB	WB	Both Approaches	Left (OB)	Right (OB)	Total (OB)
7:30 to 8:30 AM	2015	952	2967	46	44	90
11:45 AM to 12:45 AM	1346	1355	2701	60	57	117
12:45 to 1:45 PM	1416	1382	2798	85	70	155
1:45 to 2:45 PM	1346	1495	2841	73	60	133
5:30 to 6:30 PM	1386	2556	3942	73	61	134
6:30 to 7:30 PM	1082	2220	3302	60	49	109
7:30 to 8:30 PM	944	1559	2503	66	54	120
8:30 to 9:30 PM	765	1020	1785	60	50	110

*OB – Outbound traffic only

The MUTCD Manual states that 'The right turn volume should not be included in the minor street volume if the movement enters the major street with minimal conflict'. Waxpool Road is heavy volume corridor carrying more than 2,000 vehicles per hour for almost eight peak hours of the day. It also has a posted speed limit of 45 mph. Under such a situation, the right turn traffic is not able to enter the main line with minimal conflict. Hence, the original warrant study did not remove the right turn traffic out. It is anticipated that at least 75%, if not 100%, of the right turn traffic will be benefitted from the signal. However, to be conservative, and based on VDOT's comment, 25% of the right turning traffic was removed from the total outbound traffic. The revised existing conditions traffic volumes are presented in Table 6.

Table 6: Existing Conditions – Eight Heaviest Hourly Traffic Volumes for an Average Day

Hour	Traffic Volumes (vehicles per hour)					
	Waxpool Road			Waxpool Road Center Main Entrance		
	EB	WB	Both Approaches	Left (OB)	Right (OB)	Total (OB)
7:30 to 8:30 AM	2015	952	2967	46	33	79
11:45 to 12:45 AM	1346	1355	2701	60	43	103
12:45 to 1:45 PM	1416	1382	2798	85	53	138
1:45 to 2:45 PM	1346	1495	2841	73	45	118
5:30 to 6:30 PM	1386	2556	3942	73	46	119
6:30 to 7:30 PM	1082	2220	3302	60	37	97
7:30 to 8:30 PM	944	1559	2503	66	41	107
8:30 to 9:30 PM	765	1020	1785	60	38	98

*OB – Outbound traffic only

WARRANT ANALYSIS RESULTS

Warrant 1: Eight-Hour Vehicular Volume

Warrant 1 is satisfied when for each of any 8 hours of an average day, the traffic volumes given in the tables shown below exist on the major-street and on the higher-volume minor-street approaches to the intersection. If the vehicles per hour given in both of the 100% columns in the MUTCD Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection and satisfy either Condition A or Condition B for any eight hours of an average weekday, then Warrant 1 is satisfied. It should be noted that the 80% columns may be used in place of the 100% columns when street volumes for both the major-street and minor-street approaches meet or exceed the 80% values set forth in the MUTCD and satisfy both Conditions A and B for each of any 8 hours of an average day.

The specific volumes used in this study for Conditions A and B were taken from the MUTCD Table 4C-1 considering two or more lanes for moving traffic on the major approach and one lane on the minor approach under both the existing and future conditions as shown in **Tables 7A and 7B.** The MUTCD Table 4C-1 is included in the Technical Appendix.

Table 7A: Condition A – Minimum Vehicular Volume Requirements

Warrant 1A Requirements	Major Street (vehicles per hour)		Higher volume Minor Street (vehicles per hour)	
	600 (100%)	480 (80%)	150 (100%)	120 (80%)

Table 7B: Condition B – Interruption of Continuous Traffic Requirements

Warrant 1B Requirements	Major Street (vehicles per hour)		Higher volume Minor Street (vehicles per hour)	
	900 (100%)	720 (80%)	75 (100%)	60 (80%)

Condition A – Minimum Vehicular Volume: The vehicles per hour given in both of the 100% columns in the MUTCD Table 4C-1 must exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

Condition B – Interruption of Continuous Traffic: The vehicles per hour given in both of the 100% columns in the MUTCD Table 4C-1 must exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

Existing Conditions (2008)

Table 8: Existing Conditions – Volumes and Thresholds

Hour	Waxpool Road			Waxpool Road Center Main Entrance		
	Volumes	100% Threshold Conditions A/B	80% Threshold Conditions A/B	Volumes	100% Threshold Conditions A/B	80% Threshold Conditions A/B
7:30 AM	2967	600/900	480/720	79	150/75	120/60
11:45 AM	2701	600/900	480/720	103	150/75	120/60
12:45 PM	2798	600/900	480/720	138	150/75	120/60
1:45 PM	2841	600/900	480/720	118	150/75	120/60
5:30 PM	3820	600/900	480/720	119	150/75	120/60
6:30 PM	3021	600/900	480/720	97	150/75	120/60
7:30 PM	2317	600/900	480/720	107	150/75	120/60
8:30 PM	1767	600/900	480/720	98	150/75	120/60

Based on **Table** 8, all existing hourly volumes on the major-street and higher-volume minor approach meet the minimum requirements under Condition B for the 80% and 100% columns.

Warrant 1 is satisfied.

Warrant 2: Four-Hour Vehicular Volume

Warrant 2 is satisfied when the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for each of any 4 hours of an average day all fall above the applicable figure shown in the MUTCD for the existing and future combination of approach lanes.

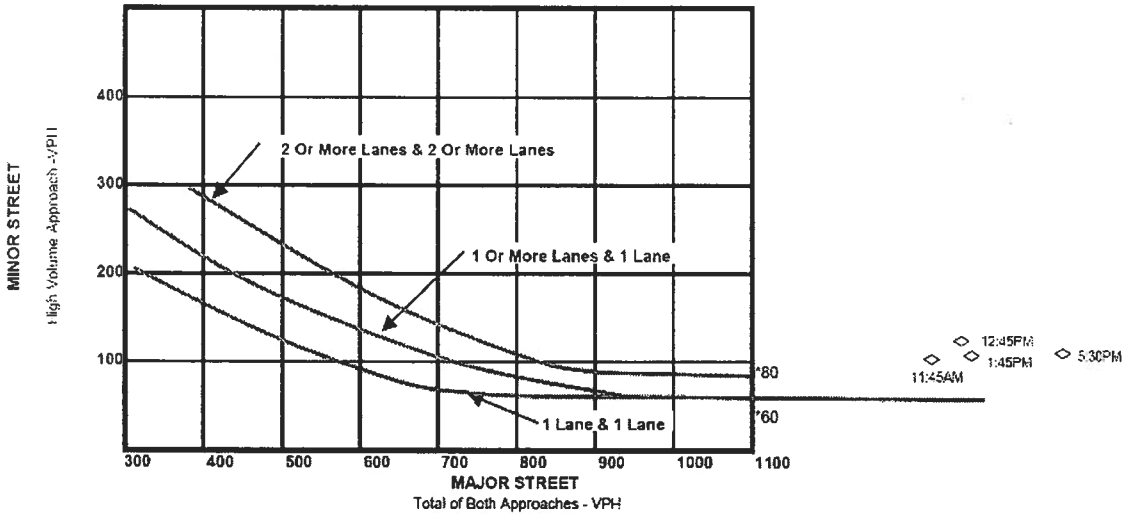
The existing traffic volumes for four hours of an average day were determined to evaluate Warrant 2, and are shown in **Table 9**. These 4 hours of an average day were based on the peak minor street volumes within the heaviest peak eight-hour traffic volumes.

Table 9: Existing Conditions – Four Hourly Traffic Volumes for an Average Day

Hour	Traffic Volumes (vehicles per hour)	
	Waxpool Road	Waxpool Road Center Main Entrance
11:45 AM	2701	103
12:45 PM	2798	138
1:45 PM	2841	118
5:30 PM	3820	119

Figure 4C-2 utilizes the 70% Factor when the surrounding community is less than 10,000 in population or the major street speed is above 40mph. The major street is Waxpool Road which has a current speed limit posted at 45 mph in the vicinity of the study intersection, therefore the 70% Factor is applicable. Any four hourly traffic volumes of an average day are plotted on the MUTCD Figure 4C-2 and, if all points are above the appropriate curve, the warrant criterion is met. As noted in this figure, 80 vehicles per hour apply as the lower threshold volume for a minor-street approach with two or more lanes and 60 vehicles per hour apply as the lower threshold volume for a minor-street approach with one lane. All minor street volumes are 80 vph or higher and all major street volumes are greater than 1,100 vph and are therefore above the appropriate curve. Therefore, **Signal Warrant 2 is satisfied** based on Figure 4C-2.

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)
(Community less than 10,000 Population or Above 70 km/h (40mph) on Major Street)



*NOTE: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

Warrant 3: Peak Hour

Warrant 3 "shall be applied only in unusual cases, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time." The need for a traffic control signal shall be considered if the criteria in either of the following two categories are met:

A. Warrant 3 is satisfied when, for the same 1 hour of an average day, the total delay on one minor-street approach (one direction only) controlled by a STOP sign equals or exceeds 4 vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach; the volume on the same minor-street approach equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes; and the total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for intersections with three approaches or 800 vehicles per hour for intersections with four or more approaches; **or**

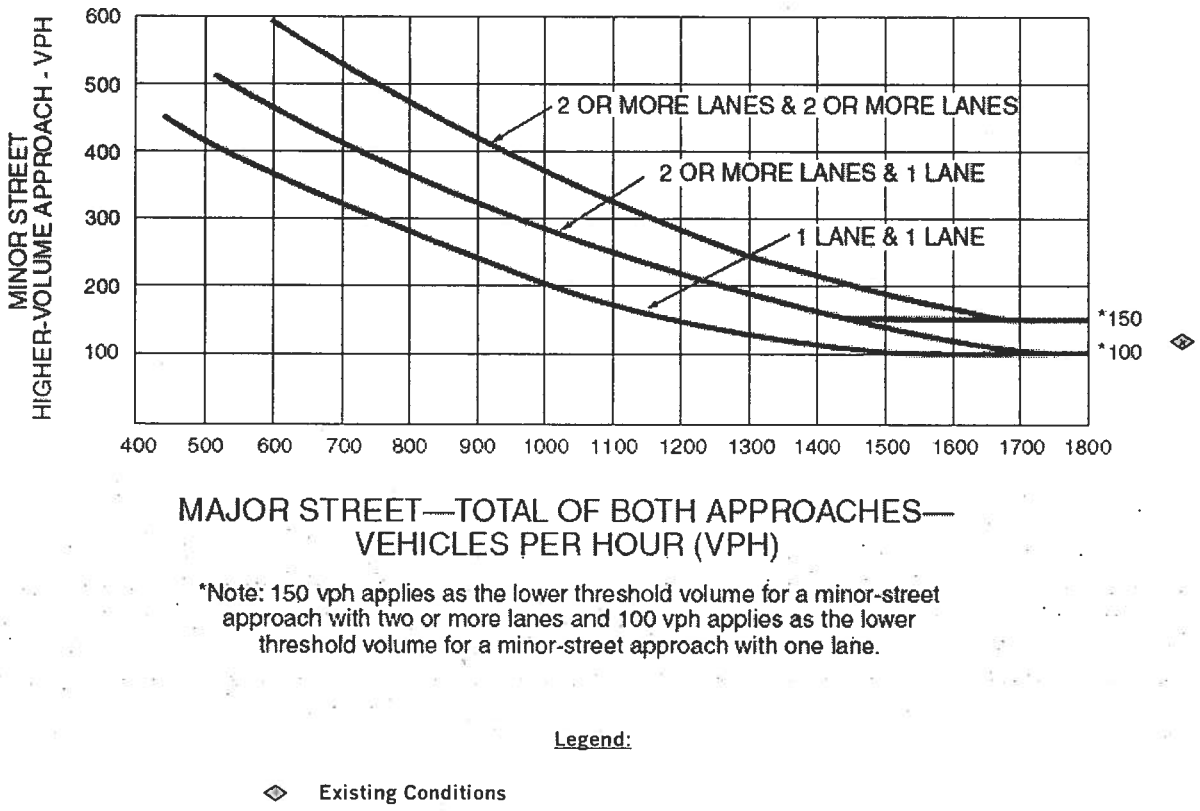
B. Warrant 3 is satisfied when the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour of an average day falls above the applicable figure shown in the MUTCD for the existing conditions of approach lanes.

Existing Conditions (2008)

The existing highest peak hour volumes on the minor and major approach occurred from 5:30 PM to 6:30 PM, with major-street and highest minor-street peak-hour volumes of 3,820 vehicles per hour and 119 vehicles per hour, respectively. Given these volumes on the major and minor street approaches, Figure 4C-3 indicates that Warrant 3 is not satisfied under the existing condition. In addition, this study intersection is not considered as an unusual case as specified above.

Warrant 3 is not satisfied or applicable.

Figure 4C-3. Warrant 3, Peak Hour



Warrant 4: Pedestrian Volume

Warrant 4 is satisfied when the pedestrian volume crossing the major street at the study intersection meets or exceeds the volumes given in the table presented below during an average day. Pedestrian counts were not completed for this intersection.

Warrant 4 is not applicable.

Warrant 5: School Crossing

Warrant 5 is applicable where school children crossing the major street are the major reason for a traffic control signal installation.

Existing Conditions (2008)

There are no existing school crossings at the study intersection. Therefore, Warrant 5 is not applicable.

Warrant 5 is not applicable.

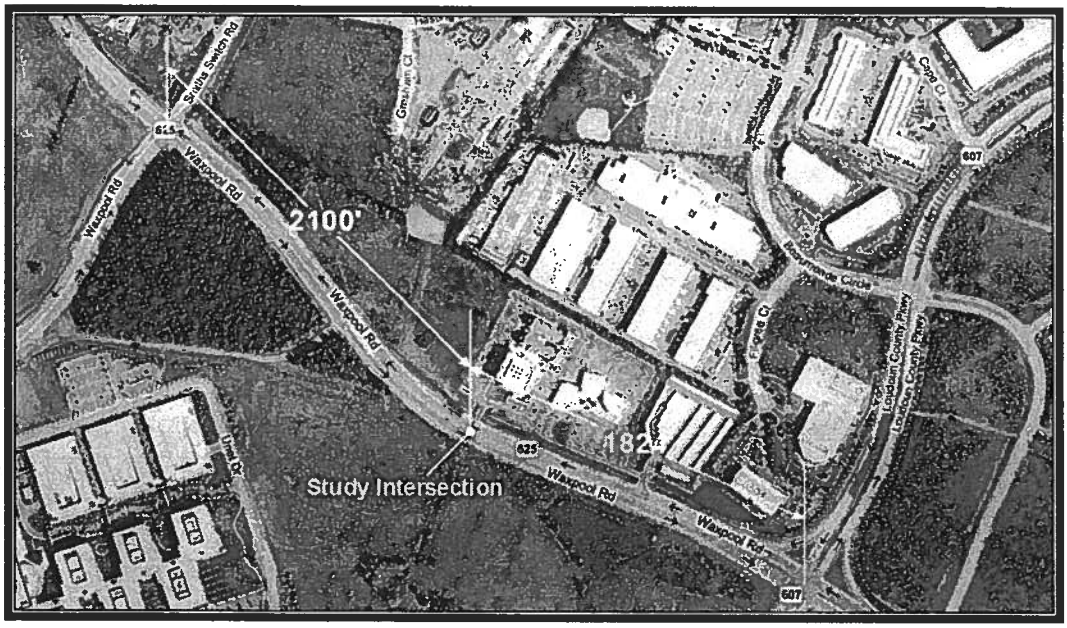
Warrant 6: Coordinated Signal System

Warrant 6 is satisfied when, "on a two-way street, adjacent traffic control signals do not provide the necessary degree of platooning and the proposed and adjacent traffic control signals will collectively provide a progressive operation." In addition, this warrant should not be applied where the resultant spacing of traffic control signals would be less than 1,000 feet.

Existing Conditions (2008)

The traffic signal at Loudoun County Parkway is located approximately 1,824 feet from this intersection and the traffic signal at Smith Switch Road is located at approximately 2,100 feet. Figure below shows the distances. The corridor study completed along Waxpool Road with a signal installed at the study intersection shows that the signal will improve the traffic flow along the Waxpool Road corridor. The adjacent traffic signal controls at Loudoun County Parkway and Smith Switch Road do not provide the necessary degree of platooning and the proposed and adjacent traffic control signals will collectively provide a progressive operation.

Warrant 6 is satisfied.



Warrant 7: Crash Experience

Warrant 7 is applicable where the severity and frequency of crashes are the principal reasons to consider the installation of a traffic control signal. This warrant is valid when all of the following criteria are met:

A. "Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency; and

B. Five or more reported crashes, of types susceptible to correction by a traffic control signal, have occurred within a 12-month period. Each crash should involve personal injury or property damage apparently exceeding the applicable requirements for a reportable crash; and

C. For each of any 8 hours of an average day, the vehicles per hour given in both of the 80% columns of Condition A in the MUTCD Table 4C-1, or the vehicles per hour in both of the 80% columns of Condition B in the MUTCD Table 4C-1 exists on the major-street and the higher-volume minor-street approach, respectively, to the intersection, or the volume of the pedestrian traffic is not less than 80% of the requirements specified in Warrant 4. These major-street and minor-street volumes shall be for the same 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of the 8 hours."

Existing Conditions (2008)

Accident data was collected from VDOT within 500 feet of the intersection of Waxpool Road and the Waxpool Road Center Main Entrance. Table 10 summarizes the number of accidents occurring between January 2003 and January 2008.

Table 10: Accident Data

	Total	2003	2004	2005	2006	2007
Total Number of Accidents	26	2	3	11	6	4
Injury Accidents	7	1	1	5		
Property Damage Accidents	19	1	2	6	6	4
Number Injured	17	4	4	9		

Within the last 12 months there have not been five or more reported crashes, therefore, Warrant 7 is not satisfied under the existing conditions.

Warrant 7 is not satisfied.

Warrant 8: Roadway Network

Warrant 8 is applied when a traffic control signal is considered for the intersection of two or more major routes.

Existing Conditions (2008)

The minor approach of the study intersection is a Main Entrance driveway and does not qualify under the description for a major route provided in the MUTCD. Therefore, this warrant is not satisfied and not applicable under the existing conditions.

Warrant 8 is not satisfied.

FUTURE CONDITIONS WARRANT ANALYSIS (2010)

A site plan for a proposed office building adjacent to the Waxpool Road Center development has been submitted and is under review. The proposed development calls for a 130,000 square feet office building. Two access points to the office building are being proposed. There is no direct access to Waxpool Road planned for the proposed office building, however an interparcel access between the proposed office parcel and Waxpool Road Center exists and will serve the proposed development. Another access point off of future Gresham Drive is also proposed. The location of the proposed office development is shown in Figure 2A and the site plan is shown in Figure 2B.

Figure 2A: Entrance Locations for Waxpool Road Center

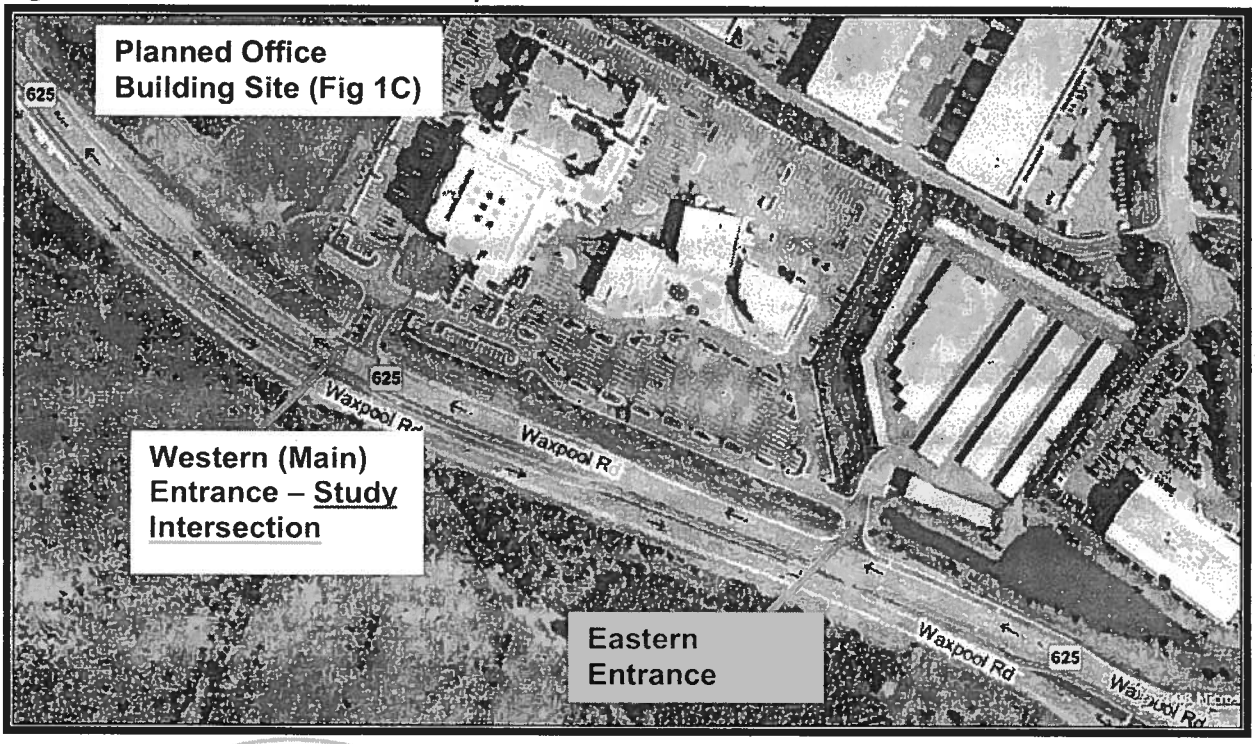
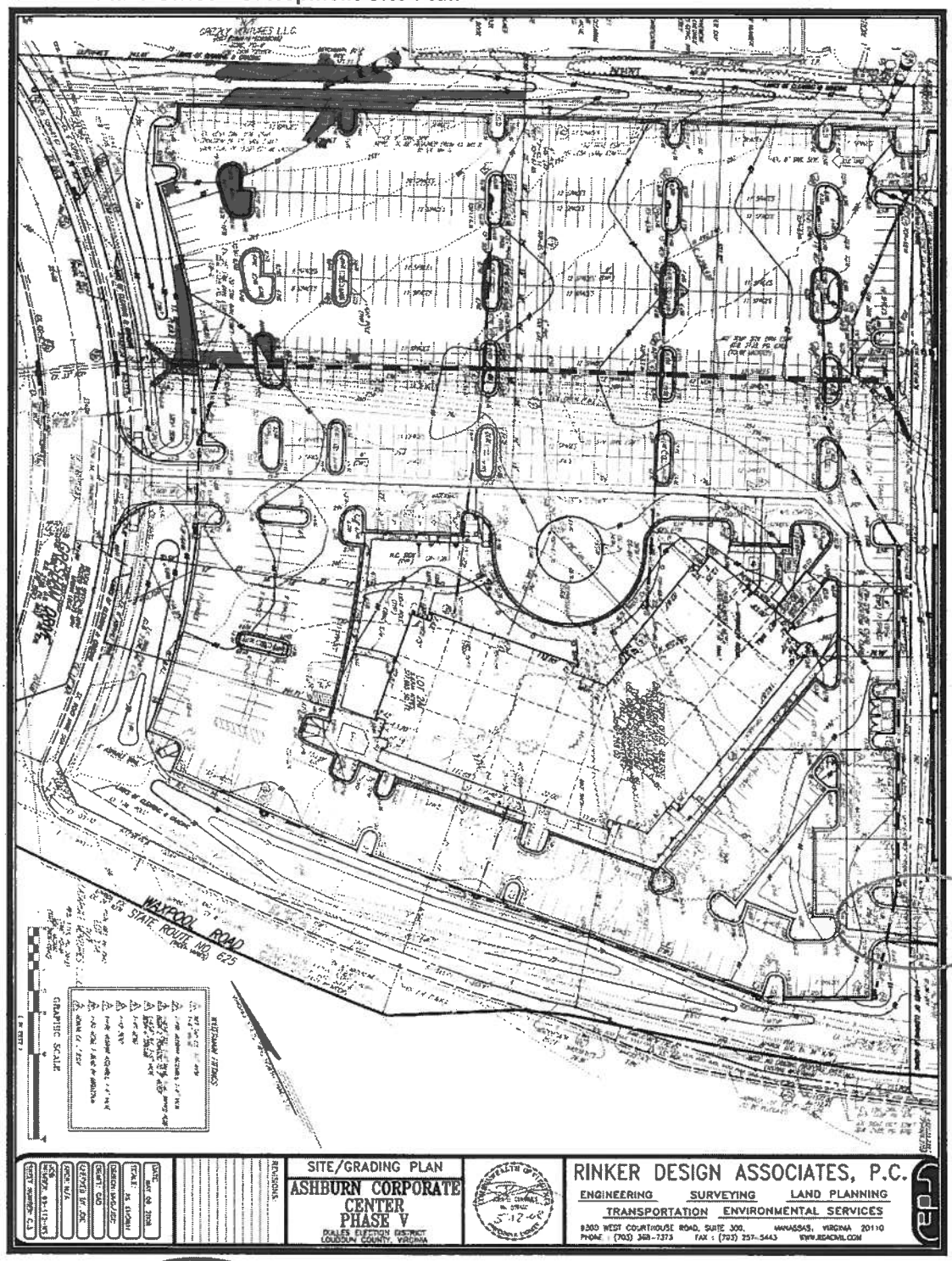


Figure 2B: Future Office Development Site Plan



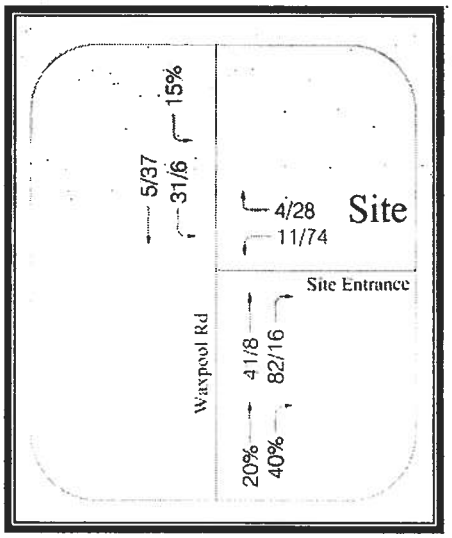
To be conservative, it was assumed that approximately 55% of the traffic will access the office development through the entrance via the existing Waxpool Road Center entrance and the remaining 45% will access the site via future Gresham Drive.

Table 11: Trip Generation

Land Use	ITE Code	Size		------ Weekday ------						Daily Total
				AM Peak Hour			PM Peak Hour			
				In	Out	Total	In	Out	Total	
Office										
General Office Building	710	130	kSF	205	27	232	39	186	225	1,633
General Office Total				**205**	**27**	**232**	**39**	**186**	**225**	**1,633**

Figure 2 below shows the traffic generated by the office development projected at the Waxpool Road Center Western Main Entrance as well as the direction of approach percentages shown in blue.

Figure 2: Traffic Generated by the Office Development



The site eight hour volumes utilizing the Waxpool Road and Waxpool Road Center Main Entrance intersection were estimated based on the peak hour volumes from **Table 3** and applying hourly variation factors (calculated from existing traffic volumes). The projected volume calculations for Waxpool Road and Waxpool Road Center Main Entrance are shown in **Table 12** and **Table 13** respectively. To be conservative, no background growth was assumed.

The future eight heaviest hourly traffic volumes at the intersection of Waxpool Road and Waxpool Road Center Main Entrance are shown in **Table 11** and the future peak hour volumes at this location are shown in **Table 12.**

Table 12: Site plus Existing Volume Calculations (2010)– Waxpool Road (Two way)

Hour	Existing (A)	Factors (B)	Peak Hour Site (C)	Site Volumes (D = B*C)	Total Volumes (A+D)
7:30 to 8:30 AM	2967	1.0	174	174	3141
11:45 to 12:45 AM	2701	0.910=2701/2967	174	158	2859
12:45 to 1:45 PM	2798	0.709=2798/3942	169	120	2918
1:45 to 2:45 PM	2841	0.720=2841/3942	169	122	2963
5:30 to 6:30 PM	3942	1.0	169	169	4111
6:30 to 7:30 PM	3302	0.837=3302/3942	169	141	3443
7:30 to 8:30 PM	2503	0.634=2503/3942	169	107	2610
8:30 to 9:30 PM	1785	0.452=1785/3942	169	76	1861

Table 13: Site plus Existing Volume Calculations (2010) – Waxpool Road Center Main Entrance (One way - Outbound)

Hour	Existing (A)	Factors (B)	Peak Hour Site (C)	Site Volumes (D = B*C)	Total Volumes (A+D)
7:30 to 8:30 AM	79	0.77=79/103	11 + (4*0.75) = 14	11	90
11:45 to 12:45 AM	103	1.0	11 + (4*0.75) = 14	14	117
12:45 to 1:45 PM	138	1.0	74 + (28*0.75) = 95	95	233
1:45 to 2:45 PM	118	0.86=118/138	74 + (28*0.75) = 95	82	200
5:30 to 6:30 PM	119	0.86=119/138	74 + (28*0.75) = 95	82	201
6:30 to 7:30 PM	97	0.70=97/138	74 + (28*0.75) = 95	67	164
7:30 to 8:30 PM	107	0.78=107/138	74 + (28*0.75) = 95	74	181
8:30 to 9:30 PM	98	0.71=98/138	74 + (28*0.75) = 95	67	165

Table 14: Future Conditions – AM and PM Peak Hour Traffic Volumes for an Average Day

Hour	Traffic Volumes (vehicles per hour)	
	Waxpool Road	Site Entrance
7:30 AM – 8:30 AM	3141	90
5:30 PM – 6:30 PM	4111	201

WARRANT ANALYSIS RESULTS

Warrant 1: Eight-Hour Vehicular Volume

Warrant 1 is satisfied when for each of any 8 hours of an average day, the traffic volumes given in the tables shown below exist on the major-street and on the higher-volume minor-street approaches to the intersection. If the vehicles per hour given in both of the 100% columns in the MUTCD Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection and satisfy either Condition A or Condition B for any eight hours of an average weekday, then Warrant 1 is satisfied. It should be noted that the 80% columns may be used in place of the 100% columns when street volumes for both the major-street and minor-street approaches meet or exceed the 80% values set forth in the MUTCD and satisfy both Conditions A and B for each of any 8 hours of an average day.

The specific volumes used in this study for Conditions A and B were taken from the MUTCD Table 4C-1 considering two or more lanes for moving traffic on the major approach and one lane on the minor approach under both the existing and future conditions as shown in **Tables 15A and 15B.** The MUTCD Table 4C-1 is included in the Technical Appendix.

Table 15A: Condition A – Minimum Vehicular Volume Requirements

Warrant 1A Requirements	Major Street (vehicles per hour)		Higher volume Minor Street (vehicles per hour)	
	600 (100%)	480 (80%)	150 (100%)	120 (80%)

Table 15B: Condition B – Interruption of Continuous Traffic Requirements

Warrant 1B Requirements	Major Street (vehicles per hour)		Higher volume Minor Street (vehicles per hour)	
	900 (100%)	720 (80%)	75 (100%)	60 (80%)

Condition A – Minimum Vehicular Volume: The vehicles per hour given in both of the 100% columns in the MUTCD Table 4C-1 must exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

Condition B – Interruption of Continuous Traffic: The vehicles per hour given in both of the 100% columns in the MUTCD Table 4C-1 must exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

Table 16: Future Conditions – Volumes and Thresholds

Hour	Waxpool Road			Waxpool Road Center Main Entrance		
	Volumes	100% Threshold Conditions A/B	80% Threshold Conditions A/B	Volumes	100% Threshold Conditions A/B	80% Threshold Conditions A/B
7:30 to 8:30 AM	3141	600/900	480/720	90	150/75	120/60
11:45 to 12:45 AM	2859	600/900	480/720	117	150/75	120/60
12:45 to 1:45 PM	2918	600/900	480/720	233	150/75	120/60
1:45 to 2:45 PM	2963	600/900	480/720	200	150/75	120/60
5:30 to 6:30 PM	4111	600/900	480/720	201	150/75	120/60
6:30 to 7:30 PM	3443	600/900	480/720	164	150/75	120/60
7:30 to 8:30 PM	2610	600/900	480/720	181	150/75	120/60
8:30 to 9:30 PM	1861	600/900	480/720	165	150/75	120/60

Based on **Table 16**, all future background hourly volumes on the major-street and higher-volume minor approach meet the minimum requirements under Condition B for the 100% and 80% columns. Therefore, there is sufficient approach volume to satisfy Warrant 1 requirements.

Warrant 1 is satisfied.

Warrant 2: Four-Hour Vehicular Volume

Warrant 2 is satisfied when the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for each of any 4 hours of an average day all fall above the applicable figure shown in the MUTCD for the existing and future combination of approach lanes.

The existing and future traffic volumes for the four heaviest hours of an average day were determined to evaluate Warrant 2, and are shown in **Tables 12 and 13,** respectively.

Table 17: Existing plus Site (2010) – Four Heaviest Hourly Traffic Volumes for an Average Day

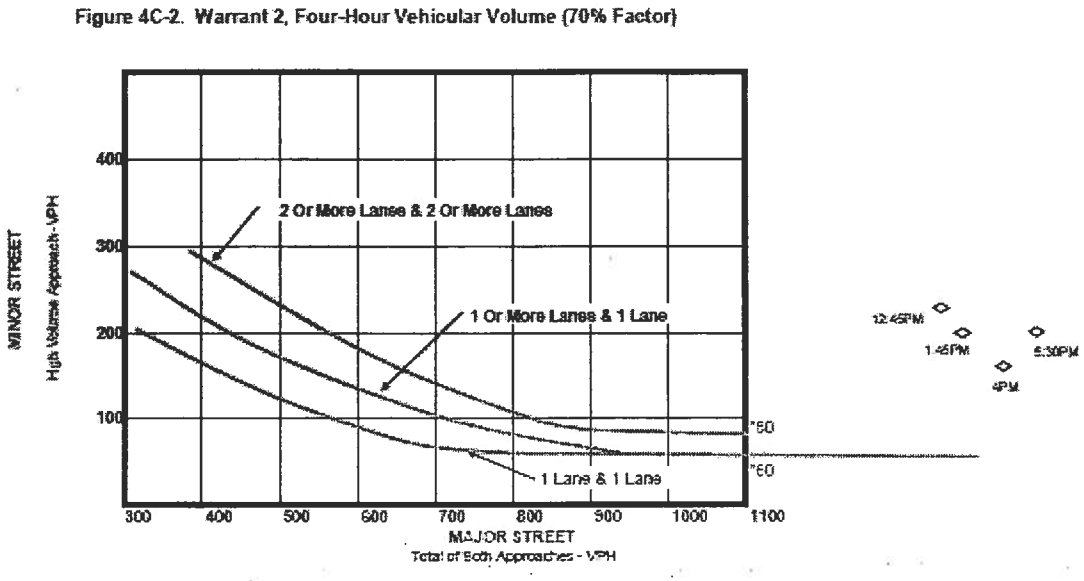
Hour	Traffic Volumes (vehicles per hour)	
	Waxpool Road	Site Entrance
12:45 PM	2918	233
1:45 PM	2963	200
5:30 PM	4111	201
6:30 PM	3443	164

Typically, the four heaviest hourly traffic volumes of an average day are plotted on the MUTCD Figure 4C-1 and, if all points are above the appropriate curve, the warrant criterion is met. As noted in this figure, 115 vehicles per hour apply as the lower threshold volume for a minor-street approach with two or more lanes and 80 vehicles per hour apply as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-2 utilizes the 70% Factor when the surrounding community is less than 10,000 in population or the major street speed is above 40mph. The major street is Waxpool Road which has a current speed limit posted at 45 mph in the vicinity of the study intersection; therefore the 70% Factor is applicable. Any four hourly traffic volumes of an average day are plotted on the MUTCD Figure 4C-2 and, if all points are above the appropriate curve, the warrant criterion is met. As noted in this figure, 80 vehicles per hour apply as the lower threshold volume for a minor-street approach with two or more lanes and 60 vehicles per hour apply as the lower threshold volume for a minor-street approach with one lane. All minor street volumes are 80 vph or higher and all major street volumes are greater than 800 vph and are therefore above the appropriate curve. Therefore, **Signal Warrant 2 is satisfied** based on Figure 4C-2.

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)

(Community less than 10,000 Population or Above 70 km/h (40mph) on Major Street)



*NOTE: 60 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

Warrant 3: Peak Hour

Warrant 3 "shall be applied only in unusual cases, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time." The need for a traffic control signal shall be considered if the criteria in either of the following two categories are met:

A. Warrant 3 is satisfied when, for the same 1 hour of an average day, the total delay on one minor-street approach (one direction only) controlled by a STOP sign equals or exceeds 4 vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach; the volume on the same minor-street approach equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes; and the total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for intersections with three approaches or 800 vehicles per hour for intersections with four or more approaches; **or**

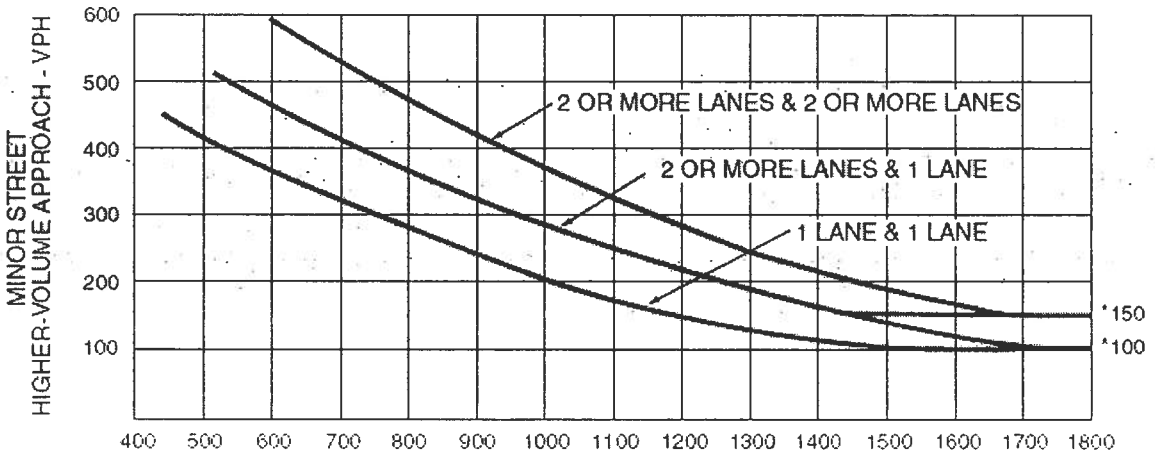
B. Warrant 3 is satisfied when the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour of an average day falls above the applicable figure shown in the MUTCD for the existing conditions of approach lanes.

Future Conditions (2010)

The future background highest peak hour volumes on the minor and major approach occurred from 5:30 PM to 6:30 PM, with major-street and highest minor-street peak-hour volumes of 4111 vehicles per hour and 201 vehicles per hour, respectively. Given these volumes on the major and minor street approaches, Figure 4C-3 indicates that Warrant 3 is satisfied under the existing condition. However, since the development is not considered as an unusual case as specified above, warrant 3 is not applicable.

Warrant 3 is not applicable.

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Legend:

◈ Future Background Conditions

Warrant 4: Pedestrian Volume

Warrant 4 is satisfied when the pedestrian volume crossing the major street at the study intersection meets or exceeds the volumes given in the table presented below during an average day. Pedestrian counts were not completed for this intersection.

Warrant 4 is not applicable.

Warrant 5: School Crossing

Warrant 5 is applicable where school children crossing the major street are the major reason for a traffic control signal installation.

Future Conditions (2010)

There are no existing school crossings at the study intersection. Therefore, Warrant 5 is not applicable.

Warrant 5 is not applicable.

Warrant 6: Coordinated Signal System

Warrant 6 is satisfied when, "on a two-way street, adjacent traffic control signals do not provide the necessary degree of platooning and the proposed and adjacent traffic control signals will collectively provide a progressive operation." In addition, this warrant should not be applied where the resultant spacing of traffic control signals would be less than 1,000 feet.

Future Conditions (2010)

The traffic signal at Loudoun County Parkway is located approximately 1,824 feet from this intersection and the traffic signal at Smith Switch Road is located at approximately 2,100 feet. The corridor study completed along Waxpool Road with a signal installed at the study intersection shows that the signal will improve the traffic flow along the Waxpool Road corridor. The adjacent traffic signal controls at Loudoun County Parkway and Smith Switch Road do not provide the necessary degree of platooning and the proposed and adjacent traffic control signals will collectively provide a progressive operation.

Warrant 6 is satisfied.

Warrant 7: Crash Experience

Warrant 7 is not satisfied under Existing Conditions (2008). Please refer to Table 7 under the Existing Condition scenario.

Warrant 8: Roadway Network

Warrant 8 is not satisfied under Existing Conditions (2008).

CONCLUSIONS

The purpose of this analysis was to determine if the installation of a traffic control signal would be justified at the intersection of Waxpool Road and the Waxpool Road Center entrance under existing conditions. A summary of the evaluation of the warrant criteria from the Manual on Uniform Traffic Control Devices (MUTCD), 2003 Edition is presented below:

Table 18: Summary of Warrant Analysis

Warrant No.	Warrant Description	Existing Conditions (2008)	Future Conditions (2010)
1	Eight-Hour Vehicular Volume	**Satisfied**	**Satisfied**
2	Four-Hour Vehicular Volume	**Satisfied**	**Satisfied**
3	Peak Hour	Not Applicable	Not Applicable
4	Pedestrian Volume	Not Satisfied	Not Satisfied
5	School Crossing	Not Satisfied	Not Satisfied
6	Coordinated Signal System	**Satisfied**	**Satisfied**
7	Crash Experience	Not Satisfied	Not Satisfied
8	Roadway Network	Not Satisfied	Not Satisfied

According to the MUTCD, only one warrant needs to be satisfied to allow for the installation of a traffic control signal. This intersection satisfies Warrants 2 and 6 under existing conditions and Warrants 1,2 and 6 under future conditions. Based on the results presented in **Table 18**, the installation of a traffic control signal is **warranted** at the intersection of Waxpool Road and the Western Waxpool Road Center Main Entrance.

TECHNICAL APPENDIX

TECHNICAL APPENDIX
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APPENDIX A

TRAFFIC COUNTS ANALYSIS

TRAFFIC COUNTS

The existing Waxpool Road Center development has the following uses on site:

Approximately 90 room hotel

Approximately 173 room hotel

Approximately 9,917 SF of Quality Restaurant (1st pad)

Approximately 3,310 SF of 3 Quality/High Turnover Restaurants (2nd pad)

Approximately 1,962 SF of 4 Quality/High Turnover Restaurants (3rd pad)

The trip generation for the existing uses on site was evaluated using ITE trip generation manual. The trip generation table is shown below:

Land Use	ITE Code	Size	Weekday						
			Reduction Rate	AM Peak Hour			PM Peak Hour			Daily Total
				In	Out	Total	In	Out	Total	
Retail										
Hotel	310	90 Rooms		29	23	52	30	21	51	433
Hotel	310	173 Rooms		51	40	91	57	40	97	1,176
Retail				**80**	**63**	**143**	**87**	**61**	**148**	**1,609**
Services										
Quality Restaurant	931	9.92 kSF		46	9	55	56	33	89	892
Quality Restaurant	931	3.31 kSF		16	2	18	19	11	30	298
Quality Restaurant	931	1.96 kSF		9	2	11	11	7	18	176
High Turnover Sit-Down Restaurant	932	3.31 kSF		24	21	45	35	28	63	421
High Turnover Sit-Down Restaurant	932	3.31 kSF		24	21	45	35	28	63	421
High Turnover Sit-Down Restaurant	932	1.96 kSF		15	12	27	21	16	37	250
High Turnover Sit-Down Restaurant	932	1.96 kSF		15	12	27	21	16	37	250
High Turnover Sit-Down Restaurant	932	1.96 kSF		15	12	27	21	16	37	250
Services Total				164	92	256	219	155	374	2,958
OVERALL TOTAL				244	155	399	306	216	522	4,567

Traffic counts using automatic traffic recorders were conducted along Waxpool Road and at the site entrance in May 2008. Per VDOT's request 12-hour turning movement counts were conducted at the study intersection on January 29, 2009. The AM and PM peak hours identified were 7:30 AM to 8:30 AM, 5:30 PM to 6:30 PM

OUTBOUND TRAFFIC (MAIN SITE ENTRANCE):

May 7th, 2008: AMPH = 87 VPH and PMPH = 121 VPH

January 29, 2008: AMPH = 63 VPH and PMPH = 52 VPH

ITE Trip Generation: AMPH = 155*75% = 116 VPH, and PMPH = 216*75% = 162

The comparison of the peak hour outbound traffic between the field counts and ITE trip generation manual show that the ITE trips are higher than the field counts data. The results show that the existing Waxpool Road Center (Retail and Hotel development) is clearly not operating at its full potential. The counts done in May 2008 are higher than the counts done in January 2009.

Based on a field visit and conversations with the retail users and operators, one of the restaurants has been closed and was not operational in Janaury 2009. In addition, the retail center has been loosing customers on a regular basis, as they are not able to access the center with lack of adequate gaps along Waxpool Road. This coupled with the cold weather factor in January, produced lower volumes. Hence, to be conservative, the ITE numbers (highest) were not used; instead the May 2007 counts were used in the warrant study. An average of the 12-hour turning movement counts was calculated to evaluate the directional split for the outbound traffic. This directional split was then applied to the May 2007 counts as shown in Table 3 in the warrant study.

APPENDIX B

TRAFFIC DATA SHEETS

Waxpool Road West of Hotel Driveway
Start Date: 5/26/2008
Start Time: 2:30:00 PM

Date	Time	Eastbound	Westbound	Combined Total
5/26/2008	02:30 PM	257		
5/26/2008	02:45 PM	261		
5/26/2008	03:00 PM	261	409	2822
5/26/2008	03:15 PM	243	460	
5/26/2008	03:30 PM	249	477	
5/26/2008	03:45 PM	220	503	
5/26/2008	04:00 PM	237	565	3438
5/26/2008	04:15 PM	213	603	
5/26/2008	04:30 PM	225	647	
5/26/2008	04:45 PM	216	732	
5/26/2008	05:00 PM	227	687	3451
5/26/2008	05:15 PM	181	728	
5/26/2008	05:30 PM	184	685	
5/26/2008	05:45 PM	174	585	
5/26/2008	06:00 PM	208	598	3312
5/26/2008	06:15 PM	190	661	
5/26/2008	06:30 PM	225	646	
5/26/2008	06:45 PM	146	638	
5/26/2008	07:00 PM	172	499	2536
5/26/2008	07:15 PM	170	484	
5/26/2008	07:30 PM	186	420	
5/26/2008	07:45 PM	170	435	
5/26/2008	08:00 PM	190	367	2013
5/26/2008	08:15 PM	159	392	
5/26/2008	08:30 PM	134	312	
5/26/2008	08:45 PM	133	326	
5/26/2008	09:00 PM	142	325	1630
5/26/2008	09:15 PM	106	323	
5/26/2008	09:30 PM	132	284	
5/26/2008	09:45 PM	85	233	
5/26/2008	10:00 PM	118	211	997
5/26/2008	10:15 PM	65	171	
5/26/2008	10:30 PM	51	176	
5/26/2008	10:45 PM	64	141	
5/26/2008	11:00 PM	46	87	510
5/26/2008	11:15 PM	31	114	
5/26/2008	11:30 PM	39	96	
5/26/2008	11:45 PM	26	71	
5/27/2008	12:00 AM	35	48	297
5/27/2008	12:15 AM	27	48	
5/27/2008	12:30 AM	19	55	
5/27/2008	12:45 AM	18	47	
5/27/2008	01:00 AM	13	26	152
5/27/2008	01:15 AM	9	21	
5/27/2008	01:30 AM	23	24	
5/27/2008	01:45 AM	12	24	
5/27/2008	02:00 AM	9	23	115
5/27/2008	02:15 AM	8	14	
5/27/2008	02:30 AM	8	25	
5/27/2008	02:45 AM	12	16	
5/27/2008	03:00 AM	14	9	133
5/27/2008	03:15 AM	13	17	
5/27/2008	03:30 AM	22	12	
5/27/2008	03:45 AM	34	12	
5/27/2008	04:00 AM	23	17	320
5/27/2008	04:15 AM	59	14	
5/27/2008	04:30 AM	76	21	
5/27/2008	04:45 AM	85	25	
5/27/2008	05:00 AM	150	28	1159
5/27/2008	05:15 AM	164	52	
5/27/2008	05:30 AM	239	80	
5/27/2008	05:45 AM	313	133	
5/27/2008	06:00 AM	350	131	2589
5/27/2008	06:15 AM	439	147	
5/27/2008	06:30 AM	551	200	
5/27/2008	06:45 AM	589	182	
5/27/2008	07:00 AM	578	185	2994
5/27/2008	07:15 AM	526	228	

Waxpool Road West of Hotel Driveway
Start Date: 5/26/2008
Start Time: 2:30:00 PM

Date	Time	Eastbound	Westbound	Combined Total
5/27/2008	07:30 AM	528	206	
5/27/2008	07:45 AM	515	228	
5/27/2008	08:00 AM	475	220	2959
5/27/2008	08:15 AM	490	254	
5/27/2008	08:30 AM	532	249	
5/27/2008	08:45 AM	476	263	
5/27/2008	09:00 AM	486	250	2738
5/27/2008	09:15 AM	469	299	
5/27/2008	09:30 AM	414	221	
5/27/2008	09:45 AM	358	239	
5/27/2008	10:00 AM	332	245	2135
5/27/2008	10:15 AM	293	224	
5/27/2008	10:30 AM	283	214	
5/27/2008	10:45 AM	331	213	
5/27/2008	11:00 AM	284	238	2274
5/27/2008	11:15 AM	304	273	
5/27/2008	11:30 AM	320	277	
5/27/2008	11:45 AM	282	296	
5/27/2008	12:00 PM	344	330	2801
5/27/2008	12:15 PM	345	370	
5/27/2008	12:30 PM	394	332	
5/27/2008	12:45 PM	360	326	
5/27/2008	01:00 PM	343	309	2714
5/27/2008	01:15 PM	336	360	
5/27/2008	01:30 PM	324	334	
5/27/2008	01:45 PM	325	383	
5/27/2008	02:00 PM	293	345	2800
5/27/2008	02:15 PM	367	388	
5/27/2008	02:30 PM	298	380	
5/27/2008	02:45 PM	320	409	
5/27/2008	03:00 PM	330	388	3090
5/27/2008	03:15 PM	333	425	
5/27/2008	03:30 PM	308	469	
5/27/2008	03:45 PM	311	526	
5/27/2008	04:00 PM	368	590	4042
5/27/2008	04:15 PM	333	601	
5/27/2008	04:30 PM	410	654	
5/27/2008	04:45 PM	361	725	
5/27/2008	05:00 PM	378	725	4134
5/27/2008	05:15 PM	335	716	
5/27/2008	05:30 PM	346	665	
5/27/2008	05:45 PM	311	658	
5/27/2008	06:00 PM	328	638	3715
5/27/2008	06:15 PM	321	649	
5/27/2008	06:30 PM	310	609	
5/27/2008	06:45 PM	280	580	
5/27/2008	07:00 PM	281	519	2857
5/27/2008	07:15 PM	274	459	
5/27/2008	07:30 PM	257	362	
5/27/2008	07:45 PM	233	472	
5/27/2008	08:00 PM	195	321	2212
5/27/2008	08:15 PM	195	418	
5/27/2008	08:30 PM	166	365	
5/27/2008	08:45 PM	180	372	
5/27/2008	09:00 PM	167	326	1675
5/27/2008	09:15 PM	127	309	
5/27/2008	09:30 PM	123	258	
5/27/2008	09:45 PM	110	255	
5/27/2008	10:00 PM	152	216	1062
5/27/2008	10:15 PM	83	198	
5/27/2008	10:30 PM	66	163	
5/27/2008	10:45 PM	48	136	
5/27/2008	11:00 PM	74	131	619
5/27/2008	11:15 PM	50	123	
5/27/2008	11:30 PM	41	94	
5/27/2008	11:45 PM	40	66	
5/28/2008	12:00 AM	44	65	350
5/28/2008	12:15 AM	28	73	

Waxpool Road West of Hotel Driveway
Start Date: 5/26/2008
Start Time: 2:30:00 PM

Date	Time	Eastbound	Westbound	Combined
5/28/2008	12:30 AM	29	55	
5/28/2008	12:45 AM	15	41	
5/28/2008	01:00 AM	14	34	154
5/28/2008	01:15 AM	20	30	
5/28/2008	01:30 AM	11	18	
5/28/2008	01:45 AM	10	17	
5/28/2008	02:00 AM	26	20	165
5/28/2008	02:15 AM	18	27	
5/28/2008	02:30 AM	22	22	
5/28/2008	02:45 AM	17	13	
5/28/2008	03:00 AM	6	18	120
5/28/2008	03:15 AM	11	17	
5/28/2008	03:30 AM	17	14	
5/28/2008	03:45 AM	23	14	
5/28/2008	04:00 AM	28	10	326
5/28/2008	04:15 AM	43	18	
5/28/2008	04:30 AM	87	24	
5/28/2008	04:45 AM	93	23	
5/28/2008	05:00 AM	121	20	1168
5/28/2008	05:15 AM	188	40	
5/28/2008	05:30 AM	270	82	
5/28/2008	05:45 AM	321	126	
5/28/2008	06:00 AM	324	133	2591
5/28/2008	06:15 AM	450	132	
5/28/2008	06:30 AM	576	209	
5/28/2008	06:45 AM	582	185	
5/28/2008	07:00 AM	544	179	2938
5/28/2008	07:15 AM	536	215	2968
5/28/2008	07:30 AM	510	226	2967
5/28/2008	07:45 AM	481	247	2963
5/28/2008	08:00 AM	521	232	2974
5/28/2008	08:15 AM	503	247	3001
5/28/2008	08:30 AM	480	252	2948
5/28/2008	08:45 AM	485	254	2942
5/28/2008	09:00 AM	511	269	2869
5/28/2008	09:15 AM	443	254	2669
5/28/2008	09:30 AM	423	303	2528
5/28/2008	09:45 AM	387	279	2357
5/28/2008	10:00 AM	331	249	2299
5/28/2008	10:15 AM	315	241	2273
5/28/2008	10:30 AM	307	248	2295
5/28/2008	10:45 AM	333	275	2350
5/28/2008	11:00 AM	311	243	2347
5/28/2008	11:15 AM	317	261	2472
5/28/2008	11:30 AM	331	279	2566
5/28/2008	11:45 AM	294	311	2701
5/28/2008	12:00 PM	339	340	2840
5/28/2008	12:15 PM	327	345	2860
5/28/2008	12:30 PM	386	359	2846
5/28/2008	12:45 PM	366	378	2798
5/28/2008	01:00 PM	384	315	2683
5/28/2008	01:15 PM	315	343	2700
5/28/2008	01:30 PM	351	346	2764
5/28/2008	01:45 PM	305	324	2841
5/28/2008	02:00 PM	355	361	2943
5/28/2008	02:15 PM	314	408	2973
5/28/2008	02:30 PM	372	402	3011
5/28/2008	02:45 PM	318	413	3013
5/28/2008	03:00 PM	329	417	3091
5/28/2008	03:15 PM	310	450	3263
5/28/2008	03:30 PM	305	471	3441
5/28/2008	03:45 PM	302	507	3726
5/28/2008	04:00 PM	351	567	3948
5/28/2008	04:15 PM	331	607	4117
5/28/2008	04:30 PM	391	670	4241
5/28/2008	04:45 PM	330	701	4227
5/28/2008	05:00 PM	403	684	4201
5/28/2008	05:15 PM	366	696	4075

Waxpool Road West of Hotel Driveway
Start Date: 5/26/2008
Start Time: 2:30:00 PM

Date	Time	Eastbound	Westbound	Combined Total
5/28/2008	05:30 PM	377	670	3942
5/28/2008	05:45 PM	347	658	3820
5/28/2008	06:00 PM	338	623	3719
5/28/2008	06:15 PM	324	605	3526
5/28/2008	06:30 PM	333	592	3302
5/28/2008	06:45 PM	265	639	3021
5/28/2008	07:00 PM	241	527	2793
5/28/2008	07:15 PM	243	482	2637
5/28/2008	07:30 PM	252	392	2503
5/28/2008	07:45 PM	243	433	2317
5/28/2008	08:00 PM	234	378	2078
5/28/2008	08:15 PM	215	356	1863
5/28/2008	08:30 PM	219	239	1785
5/28/2008	08:45 PM	197	240	1767
5/28/2008	09:00 PM	193	204	1738
5/28/2008	09:15 PM	156	337	1679
5/28/2008	09:30 PM	131	309	1526
5/28/2008	09:45 PM	145	263	1341
5/28/2008	10:00 PM	139	199	1150
5/28/2008	10:15 PM	108	232	
5/28/2008	10:30 PM	85	170	
5/28/2008	10:45 PM	62	155	
5/28/2008	11:00 PM	68	121	619
5/28/2008	11:15 PM	54	121	
5/28/2008	11:30 PM	42	86	
5/28/2008	11:45 PM	48	79	
5/29/2008	12:00 AM	41	66	352
5/29/2008	12:15 AM	32	54	
5/29/2008	12:30 AM	34	52	
5/29/2008	12:45 AM	19	54	
5/29/2008	01:00 AM	17	28	170
5/29/2008	01:15 AM	20	32	
5/29/2008	01:30 AM	13	23	
5/29/2008	01:45 AM	12	25	
5/29/2008	02:00 AM	15	28	123
5/29/2008	02:15 AM	7	17	
5/29/2008	02:30 AM	13	18	
5/29/2008	02:45 AM	13	14	
5/29/2008	03:00 AM	17	12	153
5/29/2008	03:15 AM	15	21	
5/29/2008	03:30 AM	26	14	
5/29/2008	03:45 AM	27	21	
5/29/2008	04:00 AM	22	18	295
5/29/2008	04:15 AM	46	15	
5/29/2008	04:30 AM	65	17	
5/29/2008	04:45 AM	93	19	
5/29/2008	05:00 AM	126	21	1140
5/29/2008	05:15 AM	174	38	
5/29/2008	05:30 AM	271	72	
5/29/2008	05:45 AM	339	99	
5/29/2008	06:00 AM	352	124	2506
5/29/2008	06:15 AM	426	115	
5/29/2008	06:30 AM	587	130	
5/29/2008	06:45 AM	627	145	
5/29/2008	07:00 AM	519	171	2797
5/29/2008	07:15 AM	530	177	
5/29/2008	07:30 AM	484	172	
5/29/2008	07:45 AM	511	233	
5/29/2008	08:00 AM	491	224	2805
5/29/2008	08:15 AM	498	217	
5/29/2008	08:30 AM	435	210	
5/29/2008	08:45 AM	491	239	
5/29/2008	09:00 AM	480		
5/29/2008	09:15 AM	464		
5/29/2008	09:30 AM	403		
5/29/2008	09:45 AM	381		
5/29/2008	10:00 AM	322		
5/29/2008	10:15 AM	314		

Waxpool Road West of Hotel Driveway
Start Date: 5/26/2008
Start Time: 2:30:00 PM

Date	Time	Combined Eastbound + Westbound Peak Hour
5/29/2008	10:30 AM	325
5/29/2008	10:45 AM	338
5/29/2008	11:00 AM	318
5/29/2008	11:15 AM	336
5/29/2008	11:30 AM	358
5/29/2008	11:45 AM	356
5/29/2008	12:00 PM	337
5/29/2008	12:15 PM	364
5/29/2008	12:30 PM	382
5/29/2008	12:45 PM	396
5/29/2008	01:00 PM	382
5/29/2008	01:15 PM	358
5/29/2008	01:30 PM	338
5/29/2008	01:45 PM	292
5/29/2008	02:00 PM	332
5/29/2008	02:15 PM	294
5/29/2008	02:30 PM	353
5/29/2008	02:45 PM	349
5/29/2008	03:00 PM	360
5/29/2008	03:15 PM	299
5/29/2008	03:30 PM	323
5/29/2008	03:45 PM	321
5/29/2008	04:00 PM	342
5/29/2008	04:15 PM	338
5/29/2008	04:30 PM	398
5/29/2008	04:45 PM	349
5/29/2008	05:00 PM	365
5/29/2008	05:15 PM	384
5/29/2008	05:30 PM	357
5/29/2008	05:45 PM	351
5/29/2008	06:00 PM	338
5/29/2008	06:15 PM	340
5/29/2008	06:30 PM	345
5/29/2008	06:45 PM	329
5/29/2008	07:00 PM	324
5/29/2008	07:15 PM	277
5/29/2008	07:30 PM	279
5/29/2008	07:45 PM	238
5/29/2008	08:00 PM	245
5/29/2008	08:15 PM	204
5/29/2008	08:30 PM	184
5/29/2008	08:45 PM	164
5/29/2008	09:00 PM	183
5/29/2008	09:15 PM	169
5/29/2008	09:30 PM	154
5/29/2008	09:45 PM	135
5/29/2008	10:00 PM	144
5/29/2008	10:15 PM	105
5/29/2008	10:30 PM	97
5/29/2008	10:45 PM	74
5/29/2008	11:00 PM	84
5/29/2008	11:15 PM	49
5/29/2008	11:30 PM	56
5/29/2008	11:45 PM	44
5/30/2008	12:00 AM	39
5/30/2008	12:15 AM	30
5/30/2008	12:30 AM	24
5/30/2008	12:45 AM	25
5/30/2008	01:00 AM	20
5/30/2008	01:15 AM	12
5/30/2008	01:30 AM	28
5/30/2008	01:45 AM	21
5/30/2008	02:00 AM	11
5/30/2008	02:15 AM	13
5/30/2008	02:30 AM	14
5/30/2008	02:45 AM	12
5/30/2008	03:00 AM	13
5/30/2008	03:15 AM	13

Waxpool Road West of Hotel Driveway
Start Date: 5/26/2008
Start Time: 2:30:00 PM

Date	Time	Eastbound Vehicles Counted
5/30/2008	03:30 AM	18
5/30/2008	03:45 AM	28
5/30/2008	04:00 AM	26
5/30/2008	04:15 AM	46
5/30/2008	04:30 AM	70
5/30/2008	04:45 AM	83
5/30/2008	05:00 AM	103
5/30/2008	05:15 AM	172
5/30/2008	05:30 AM	240
5/30/2008	05:45 AM	272
5/30/2008	06:00 AM	333
5/30/2008	06:15 AM	428
5/30/2008	06:30 AM	496
5/30/2008	06:45 AM	521
5/30/2008	07:00 AM	587
5/30/2008	07:15 AM	507
5/30/2008	07:30 AM	476
5/30/2008	07:45 AM	534
5/30/2008	08:00 AM	508
5/30/2008	08:15 AM	477
5/30/2008	08:30 AM	476
5/30/2008	08:45 AM	523
5/30/2008	09:00 AM	441
5/30/2008	09:15 AM	405
5/30/2008	09:30 AM	397
5/30/2008	09:45 AM	363
5/30/2008	10:00 AM	355
5/30/2008	10:15 AM	300
5/30/2008	10:30 AM	313
5/30/2008	10:45 AM	334
5/30/2008	11:00 AM	312
5/30/2008	11:15 AM	332
5/30/2008	11:30 AM	406
5/30/2008	11:45 AM	347
5/30/2008	12:00 PM	347
5/30/2008	12:15 PM	387
5/30/2008	12:30 PM	390
5/30/2008	12:45 PM	401
5/30/2008	01:00 PM	404
5/30/2008	01:15 PM	389
5/30/2008	01:30 PM	358
5/30/2008	01:45 PM	356
5/30/2008	02:00 PM	349
5/30/2008	02:15 PM	343
5/30/2008	02:30 PM	391
5/30/2008	02:45 PM	330
5/30/2008	03:00 PM	343
5/30/2008	03:15 PM	314
5/30/2008	03:30 PM	326
5/30/2008	03:45 PM	359
5/30/2008	04:00 PM	344
5/30/2008	04:15 PM	389
5/30/2008	04:30 PM	378
5/30/2008	04:45 PM	337
5/30/2008	05:00 PM	404
5/30/2008	05:15 PM	353
5/30/2008	05:30 PM	364
5/30/2008	05:45 PM	339
5/30/2008	06:00 PM	352
5/30/2008	06:15 PM	365
5/30/2008	06:30 PM	352
5/30/2008	06:45 PM	351
5/30/2008	07:00 PM	296
5/30/2008	07:15 PM	334
5/30/2008	07:30 PM	291
5/30/2008	07:45 PM	271
5/30/2008	08:00 PM	266
5/30/2008	08:15 PM	248

Waxpool Road West of Hotel Driveway
Start Date: 5/26/2008
Start Time: 2:30:00 PM

Date	Time	Eastbound Westbound
5/30/2008	08:30 PM	209
5/30/2008	08:45 PM	174
5/30/2008	09:00 PM	183
5/30/2008	09:15 PM	153
5/30/2008	09:30 PM	134
5/30/2008	09:45 PM	167
5/30/2008	10:00 PM	131
5/30/2008	10:15 PM	120
5/30/2008	10:30 PM	140
5/30/2008	10:45 PM	119
5/30/2008	11:00 PM	115
5/30/2008	11:15 PM	101
5/30/2008	11:30 PM	104
5/30/2008	11:45 PM	78
5/31/2008	12:00 AM	58
5/31/2008	12:15 AM	56
5/31/2008	12:30 AM	40
5/31/2008	12:45 AM	37
5/31/2008	01:00 AM	38
5/31/2008	01:15 AM	32
5/31/2008	01:30 AM	31
5/31/2008	01:45 AM	32
5/31/2008	02:00 AM	34
5/31/2008	02:15 AM	24
5/31/2008	02:30 AM	26
5/31/2008	02:45 AM	15
5/31/2008	03:00 AM	14
5/31/2008	03:15 AM	12
5/31/2008	03:30 AM	21
5/31/2008	03:45 AM	25
5/31/2008	04:00 AM	19
5/31/2008	04:15 AM	20
5/31/2008	04:30 AM	49
5/31/2008	04:45 AM	33
5/31/2008	05:00 AM	34
5/31/2008	05:15 AM	41
5/31/2008	05:30 AM	81
5/31/2008	05:45 AM	82
5/31/2008	06:00 AM	75
5/31/2008	06:15 AM	73
5/31/2008	06:30 AM	105
5/31/2008	06:45 AM	111
5/31/2008	07:00 AM	131
5/31/2008	07:15 AM	148
5/31/2008	07:30 AM	196
5/31/2008	07:45 AM	195
5/31/2008	08:00 AM	232
5/31/2008	08:15 AM	268
5/31/2008	08:30 AM	322
5/31/2008	08:45 AM	278
5/31/2008	09:00 AM	298
5/31/2008	09:15 AM	336
5/31/2008	09:30 AM	387
5/31/2008	09:45 AM	410
5/31/2008	10:00 AM	363
5/31/2008	10:15 AM	358
5/31/2008	10:30 AM	396
5/31/2008	10:45 AM	432
5/31/2008	11:00 AM	414
5/31/2008	11:15 AM	431
5/31/2008	11:30 AM	445
5/31/2008	11:45 AM	402
5/31/2008	12:00 PM	399
5/31/2008	12:15 PM	439
5/31/2008	12:30 PM	387
5/31/2008	12:45 PM	409
5/31/2008	01:00 PM	450
5/31/2008	01:15 PM	422

Waxpool Road West of Hotel Driveway
Start Date: 5/26/2008
Start Time: 2:30:00 PM

		[redacted]
5/31/2008	01:30 PM	405
5/31/2008	01:45 PM	372
5/31/2008	02:00 PM	324
5/31/2008	02:15 PM	360
5/31/2008	02:30 PM	364
5/31/2008	02:45 PM	326
5/31/2008	03:00 PM	345
5/31/2008	03:15 PM	324
5/31/2008	03:30 PM	329
5/31/2008	03:45 PM	289
5/31/2008	04:00 PM	339
5/31/2008	04:15 PM	302
5/31/2008	04:30 PM	325
5/31/2008	04:45 PM	339
5/31/2008	05:00 PM	290
5/31/2008	05:15 PM	304
5/31/2008	05:30 PM	301
5/31/2008	05:45 PM	262
5/31/2008	06:00 PM	254
5/31/2008	06:15 PM	276
5/31/2008	06:30 PM	274
5/31/2008	06:45 PM	259
5/31/2008	07:00 PM	277
5/31/2008	07:15 PM	232
5/31/2008	07:30 PM	242
5/31/2008	07:45 PM	218
5/31/2008	08:00 PM	199
5/31/2008	08:15 PM	220
5/31/2008	08:30 PM	182
5/31/2008	08:45 PM	207
5/31/2008	09:00 PM	172
5/31/2008	09:15 PM	154
5/31/2008	09:30 PM	144
5/31/2008	09:45 PM	161
5/31/2008	10:00 PM	157
5/31/2008	10:15 PM	126
5/31/2008	10:30 PM	120
5/31/2008	10:45 PM	117
5/31/2008	11:00 PM	114
5/31/2008	11:15 PM	84
5/31/2008	11:30 PM	72
5/31/2008	11:45 PM	80
6/1/2008	12:00 AM	89
6/1/2008	12:15 AM	54
6/1/2008	12:30 AM	54
6/1/2008	12:45 AM	41
6/1/2008	01:00 AM	49
6/1/2008	01:15 AM	29
6/1/2008	01:30 AM	26
6/1/2008	01:45 AM	35
6/1/2008	02:00 AM	35
6/1/2008	02:15 AM	27
6/1/2008	02:30 AM	18
6/1/2008	02:45 AM	17
6/1/2008	03:00 AM	19
6/1/2008	03:15 AM	19
6/1/2008	03:30 AM	23
6/1/2008	03:45 AM	19
6/1/2008	04:00 AM	18
6/1/2008	04:15 AM	23
6/1/2008	04:30 AM	34
6/1/2008	04:45 AM	22
6/1/2008	05:00 AM	21
6/1/2008	05:15 AM	28
6/1/2008	05:30 AM	58
6/1/2008	05:45 AM	38
6/1/2008	06:00 AM	44
6/1/2008	06:15 AM	58

Waxpool Road West of Hotel Driveway
Start Date: 5/26/2008
Start Time: 2:30:00 PM

Date	Time	Combined Total
6/1/2008	06:30 AM	71
6/1/2008	06:45 AM	83
6/1/2008	07:00 AM	69
6/1/2008	07:15 AM	74
6/1/2008	07:30 AM	98
6/1/2008	07:45 AM	115
6/1/2008	08:00 AM	124
6/1/2008	08:15 AM	161
6/1/2008	08:30 AM	196
6/1/2008	08:45 AM	191
6/1/2008	09:00 AM	233
6/1/2008	09:15 AM	268
6/1/2008	09:30 AM	296
6/1/2008	09:45 AM	278
6/1/2008	10:00 AM	285
6/1/2008	10:15 AM	329
6/1/2008	10:30 AM	363
6/1/2008	10:45 AM	365
6/1/2008	11:00 AM	343
6/1/2008	11:15 AM	321
6/1/2008	11:30 AM	359
6/1/2008	11:45 AM	357
6/1/2008	12:00 PM	378
6/1/2008	12:15 PM	404
6/1/2008	12:30 PM	399
6/1/2008	12:45 PM	357
6/1/2008	01:00 PM	352
6/1/2008	01:15 PM	347
6/1/2008	01:30 PM	336
6/1/2008	01:45 PM	316

DRIVEWAY
Start Date: 5/6/2008
Start Time: 3:15:00 PM

Date	Time	NORTHBOUND	SOUTHBOUND	NB	SB	
5/6/2008	03:15 PM	8	22	36	81	
5/6/2008	03:30 PM	12	33	36	70	
5/6/2008	03:45 PM	9	14	37	62	
5/6/2008	04:00 PM	7	12	46	69	
5/6/2008	04:15 PM	8	11	54	74	
5/6/2008	04:30 PM	13	25	59	74	
5/6/2008	04:45 PM	18	21	62	76	
5/6/2008	05:00 PM	15	17	57	85	
5/6/2008	05:15 PM	13	11	49	87	
5/6/2008	05:30 PM	16	27	51	96	
5/6/2008	05:45 PM	13	30	56	97	
5/6/2008	06:00 PM	7	19	55	104	
5/6/2008	06:15 PM	15	20	65	115	
5/6/2008	06:30 PM	21	28	61	111	
5/6/2008	06:45 PM	12	37	47	105	
5/6/2008	07:00 PM	17	30	50	78	
5/6/2008	07:15 PM	11	16	43	76	
5/6/2008	07:30 PM	7	22	40	83	
5/6/2008	07:45 PM	15	10	41	81	
5/6/2008	08:00 PM	10	28	35	90	
5/6/2008	08:15 PM	8	23	42	74	
5/6/2008	08:30 PM	8	20	42	58	
5/6/2008	08:45 PM	9	19	42	47	
5/6/2008	09:00 PM	17	12	40	31	
5/6/2008	09:15 PM	8	7	33	33	
5/6/2008	09:30 PM	8	9	32	32	
5/6/2008	09:45 PM	7	3	35	25	
5/6/2008	10:00 PM	10	14	28	35	
5/6/2008	10:15 PM	7	6	24	28	
5/6/2008	10:30 PM	11	2	19	26	
5/6/2008	10:45 PM	0	13	10	25	
5/6/2008	11:00 PM	6	7	11	18	
5/6/2008	11:15 PM	2	4	6	11	
5/6/2008	11:30 PM	2	1	4	8	
5/6/2008	11:45 PM	1	6	4	7	
5/7/2008	12:00 AM	1	0	4	1	1
5/7/2008	12:15 AM	0	1	4	1	1
5/7/2008	12:30 AM	2	0	4	0	0
5/7/2008	12:45 AM	1	0	3	1	1
5/7/2008	01:00 AM	1	0	3	1	1
5/7/2008	01:15 AM	0	0	2	1	1
5/7/2008	01:30 AM	1	1	3	1	1
5/7/2008	01:45 AM	1	0	2	0	0
5/7/2008	02:00 AM	0	0	2	0	0
5/7/2008	02:15 AM	1	0	2	0	0
5/7/2008	02:30 AM	0	0	1	2	2
5/7/2008	02:45 AM	1	0	1	2	2
5/7/2008	03:00 AM	0	0	0	2	2
5/7/2008	03:15 AM	0	2	1	4	4
5/7/2008	03:30 AM	0	0	1	2	2
5/7/2008	03:45 AM	0	0	2	2	2
5/7/2008	04:00 AM	1	2	11	6	6
5/7/2008	04:15 AM	0	0	11	5	5
5/7/2008	04:30 AM	1	0	14	10	10
5/7/2008	04:45 AM	9	4	28	20	20
5/7/2008	05:00 AM	1	1	35	19	19
5/7/2008	05:15 AM	3	5	41	22	22
5/7/2008	05:30 AM	15	10	42	19	19
5/7/2008	05:45 AM	16	3	30	14	14
5/7/2008	06:00 AM	7	4	20	21	21
5/7/2008	06:15 AM	4	2	21	30	30
5/7/2008	06:30 AM	3	5	19	41	41
5/7/2008	06:45 AM	8	10	31	59	59
5/7/2008	07:00 AM	8	13	35	79	79
5/7/2008	07:15 AM	2	13	28	82	82
5/7/2008	07:30 AM	15	23	31	87	87 1
5/7/2008	07:45 AM	10	30	22	87	87
5/7/2008	08:00 AM	1	16	17	83	83

DRIVEWAY
Start Date: 5/6/2008
Start Time: 3:15:00 PM

Date	Time	NORTHBOUND	SOUTHBOUND	Peak Hour NB	Peak Hour SB		
5/7/2008	08:15 AM	5	18	29	81	81	
5/7/2008	08:30 AM	6	23	34	72	72	
5/7/2008	08:45 AM	5	26	31	56	56	
5/7/2008	09:00 AM	13	14	36	39	39	
5/7/2008	09:15 AM	10	9	33	46	46	
5/7/2008	09:30 AM	3	7	32	47	47	
5/7/2008	09:45 AM	10	9	35	45	45	
5/7/2008	10:00 AM	10	21	29	42	42	
5/7/2008	10:15 AM	9	10	24	26	26	
5/7/2008	10:30 AM	6	5	22	28	28	
5/7/2008	10:45 AM	4	8	28	30	30	
5/7/2008	11:00 AM	5	5	34	41	41	
5/7/2008	11:15 AM	7	12	51	66	66	
5/7/2008	11:30 AM	12	7	59	81	81	
5/7/2008	11:45 AM	10	17	68	113	113	2
5/7/2008	12:00 PM	22	30	72	128	128	
5/7/2008	12:15 PM	15	27	68	138	138	
5/7/2008	12:30 PM	21	39	67	142	142	
5/7/2008	12:45 PM	14	32	55	140	140	3
5/7/2008	01:00 PM	18	40	51	144	144	
5/7/2008	01:15 PM	14	31	45	116	116	
5/7/2008	01:30 PM	9	37	40	122	122	
5/7/2008	01:45 PM	10	36	37	120	120	4
5/7/2008	02:00 PM	12	12	34	105	105	
5/7/2008	02:15 PM	9	37	31	110	110	
5/7/2008	02:30 PM	6	35	28	97	97	
5/7/2008	02:45 PM	7	21	24	80	80	
5/7/2008	03:00 PM	9	17	21	70	70	
5/7/2008	03:15 PM	6	24	23	81	81	
5/7/2008	03:30 PM	2	18	23	73	73	
5/7/2008	03:45 PM	4	11	40	83	83	
5/7/2008	04:00 PM	11	28	45	80	80	
5/7/2008	04:15 PM	6	16	40	63	63	
5/7/2008	04:30 PM	19	28	47	64	64	
5/7/2008	04:45 PM	9	8	34	53	53	
5/7/2008	05:00 PM	6	11	41	70	70	
5/7/2008	05:15 PM	13	17	48	97	97	
5/7/2008	05:30 PM	6	17	51	121	121	5
5/7/2008	05:45 PM	16	25	60	136	136	
5/7/2008	06:00 PM	13	38	61	134	134	
5/7/2008	06:15 PM	16	41	60	130	130	
5/7/2008	06:30 PM	15	32	60	98	98	6
5/7/2008	06:45 PM	17	23	65	102	102	
5/7/2008	07:00 PM	12	34	67	110	110	
5/7/2008	07:15 PM	16	9	69	98	98	
5/7/2008	07:30 PM	20	36	63	108	108	7
5/7/2008	07:45 PM	19	31	50	104	104	
5/7/2008	08:00 PM	14	22	37	102	102	
5/7/2008	08:15 PM	10	19	28	99	99	
5/7/2008	08:30 PM	7	32	28	99	99	8
5/7/2008	08:45 PM	6	29	28	76	76	
5/7/2008	09:00 PM	5	19	31	54	54	
5/7/2008	09:15 PM	10	19	32	51	51	
5/7/2008	09:30 PM	7	9	34	40	40	
5/7/2008	09:45 PM	9	7	31	35	35	
5/7/2008	10:00 PM	6	16	25	34	34	
5/7/2008	10:15 PM	12	8	25	24	24	
5/7/2008	10:30 PM	4	4	19	21	21	
5/7/2008	10:45 PM	3	6	16	18	18	
5/7/2008	11:00 PM	6	6	14	16	16	
5/7/2008	11:15 PM	6	5	13	12	12	
5/7/2008	11:30 PM	1	1	8	7	7	
5/7/2008	11:45 PM	1	4	10	6	8	
5/8/2008	12:00 AM	5	2	10	2		
5/8/2008	12:15 AM	1	0	5	3		
5/8/2008	12:30 AM	3	0	4	3		
5/8/2008	12:45 AM	1	0	1	5		
5/8/2008	01:00 AM	0	3	0	5		

DRIVEWAY
Start Date: 5/6/2008
Start Time: 3:15:00 PM

Date	Hour	NORTHBOUND	SOUTHBOUND	NB	SB
5/8/2008	01:15 AM	0	0	0	2
5/8/2008	01:30 AM	0	2	0	7
5/8/2008	01:45 AM	0	0	1	5
5/8/2008	02:00 AM	0	0	1	5
5/8/2008	02:15 AM	0	5	1	5
5/8/2008	02:30 AM	1	0	1	2
5/8/2008	02:45 AM	0	0	0	2
5/8/2008	03:00 AM	0	0	1	3
5/8/2008	03:15 AM	0	2	3	4
5/8/2008	03:30 AM	0	0	3	2
5/8/2008	03:45 AM	1	1	5	4
5/8/2008	04:00 AM	2	1	11	6
5/8/2008	04:15 AM	0	0	10	7
5/8/2008	04:30 AM	2	2	18	9
5/8/2008	04:45 AM	7	3	27	13
5/8/2008	05:00 AM	1	2	36	18
5/8/2008	05:15 AM	8	2	42	21
5/8/2008	05:30 AM	11	6	42	24
5/8/2008	05:45 AM	16	8	33	22
5/8/2008	06:00 AM	7	5	32	24
5/8/2008	06:15 AM	8	5	26	36
5/8/2008	06:30 AM	2	4	30	43
5/8/2008	06:45 AM	15	10	38	57
5/8/2008	07:00 AM	1	17	34	70
5/8/2008	07:15 AM	12	12	38	64
5/8/2008	07:30 AM	10	18	29	69
5/8/2008	07:45 AM	11	23	22	67
5/8/2008	08:00 AM	5	11	13	76
5/8/2008	08:15 AM	3	17	23	77
5/8/2008	08:30 AM	3	16	30	70
5/8/2008	08:45 AM	2	32	33	62
5/8/2008	09:00 AM	15	12	36	49
5/8/2008	09:15 AM	10	10	26	54
5/8/2008	09:30 AM	6	8	19	58
5/8/2008	09:45 AM	5	19	22	56
5/8/2008	10:00 AM	5	17	21	50
5/8/2008	10:15 AM	3	14	21	39
5/8/2008	10:30 AM	9	6	25	40
5/8/2008	10:45 AM	4	13	27	45
5/8/2008	11:00 AM	5	6	36	58
5/8/2008	11:15 AM	7	15	54	88
5/8/2008	11:30 AM	11	11	67	103
5/8/2008	11:45 AM	13	26	80	139
5/8/2008	12:00 PM	23	36	76	157
5/8/2008	12:15 PM	20	30	72	164
5/8/2008	12:30 PM	24	47	64	165
5/8/2008	12:45 PM	9	44	48	149
5/8/2008	01:00 PM	19	43	46	151
5/8/2008	01:15 PM	12	31	38	127
5/8/2008	01:30 PM	8	31	32	124
5/8/2008	01:45 PM	7	46	36	121
5/8/2008	02:00 PM	11	19	34	92
5/8/2008	02:15 PM	6	28	29	88
5/8/2008	02:30 PM	12	28	29	80
5/8/2008	02:45 PM	5	17	27	73
5/8/2008	03:00 PM	6	15	36	68
5/8/2008	03:15 PM	6	20	37	65
5/8/2008	03:30 PM	10	21	43	57
5/8/2008	03:45 PM	14	12	49	72
5/8/2008	04:00 PM	7	12	45	73
5/8/2008	04:15 PM	12	12	49	68
5/8/2008	04:30 PM	16	36	48	75
5/8/2008	04:45 PM	10	13	38	46
5/8/2008	05:00 PM	11	7	41	66
5/8/2008	05:15 PM	11	19	41	86
5/8/2008	05:30 PM	6	7	39	93
5/8/2008	05:45 PM	13	33	49	112
5/8/2008	06:00 PM	11	27	44	104

DRIVEWAY
Start Date: 5/6/2008
Start Time: 3:15:00 PM

Date	Time	NORTHBOUND	SOUTHBOUND	TOTAL	
5/8/2008	06:15 PM	9	26	48	114
5/8/2008	06:30 PM	16	26	47	117
5/8/2008	06:45 PM	8	25	44	117
5/8/2008	07:00 PM	15	37	44	112
5/8/2008	07:15 PM	8	29	49	94
5/8/2008	07:30 PM	13	26	51	96
5/8/2008	07:45 PM	8	20	50	80
5/8/2008	08:00 PM	20	19	54	81
5/8/2008	08:15 PM	10	31	45	90
5/8/2008	08:30 PM	12	10	42	69
5/8/2008	08:45 PM	12	21	43	77
5/8/2008	09:00 PM	11	28	41	66
5/8/2008	09:15 PM	7	10	35	51
5/8/2008	09:30 PM	13	18	34	50
5/8/2008	09:45 PM	10	10	25	37
5/8/2008	10:00 PM	5	13	21	29
5/8/2008	10:15 PM	6	9	19	32
5/8/2008	10:30 PM	4	5	19	29
5/8/2008	10:45 PM	6	2	17	27
5/8/2008	11:00 PM	3	16	15	25
5/8/2008	11:15 PM	6	6	16	9
5/8/2008	11:30 PM	2	3	12	7
5/8/2008	11:45 PM	4	0	10	4
5/9/2008	12:00 AM	4	0	7	6
5/9/2008	12:15 AM	2	4	3	6
5/9/2008	12:30 AM	0	0	2	3
5/9/2008	12:45 AM	1	2	4	3
5/9/2008	01:00 AM	0	0	3	1
5/9/2008	01:15 AM	1	1	3	2
5/9/2008	01:30 AM	2	0	2	1
5/9/2008	01:45 AM	0	0	1	2
5/9/2008	02:00 AM	0	1	1	2
5/9/2008	02:15 AM	0	0	1	1
5/9/2008	02:30 AM	1	1	2	1
5/9/2008	02:45 AM	0	0	1	1
5/9/2008	03:00 AM	0	0	2	4
5/9/2008	03:15 AM	1	0	2	6
5/9/2008	03:30 AM	0	1	3	11
5/9/2008	03:45 AM	1	3	5	11
5/9/2008	04:00 AM	0	2	11	9
5/9/2008	04:15 AM	2	5	15	15
5/9/2008	04:30 AM	2	1	20	13
5/9/2008	04:45 AM	7	1	28	16
5/9/2008	05:00 AM	4	8	34	19
5/9/2008	05:15 AM	7	3	36	16
5/9/2008	05:30 AM	10	4	33	19
5/9/2008	05:45 AM	13	4	27	29
5/9/2008	06:00 AM	6	5	19	32
5/9/2008	06:15 AM	4	6	17	43
5/9/2008	06:30 AM	4	14	17	55
5/9/2008	06:45 AM	5	7	16	52
5/9/2008	07:00 AM	4	16	24	65
5/9/2008	07:15 AM	4	18	20	57
5/9/2008	07:30 AM	3	11	21	55
5/9/2008	07:45 AM	13	20	22	66
5/9/2008	08:00 AM	0	8	15	56
5/9/2008	08:15 AM	5	16	25	60
5/9/2008	08:30 AM	4	22	20	45
5/9/2008	08:45 AM	6	10	16	23
5/9/2008	09:00 AM	10	12	11	14
5/9/2008	09:15 AM	0	1	1	2
5/9/2008	09:30 AM	0	0	1	1
5/9/2008	09:45 AM	1	1	1	1
5/9/2008	10:00 AM	0	0	0	0

Gorove/Slade Associates

Project Name :	Waxpool Road Signal Warrant
Project # :	2140-002
Location	Loudoun County
Data Source:	Gorove/Slade Associates, Inc

Intersection: Waxpool Road at Hotel and Plaza shared Access

AM PEAK			Southbound Parking Lot Access				Westbound Waxpool Road				Northbound No Approach				Eastbound Waxpool Road				Interval total	Hour Beginning	Hourly Ins	Hourly Outs	Hourly Ins		Hourly Outs			
Direction:																												
Roadway:																												
Movement:			Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds					Left	Right	Left	Right	Left	Right
7:00 AM	to	7:15 AM	2	0	3	0	1		0	0	0	0	0	0	0		3	0	9	84	32	52	16	16	40	12	77%	23%
7:15 AM	to	7:30 AM	2	0	5	0	2		0	0	0	0	0	0	0		4	0	13	97					49	13		
7:30 AM	to	7:45 AM	5	0	14	0	6		0	0	0	0	0	0	0		6	0	31	102					48	15		
7:45 AM	to	8:00 AM	3	0	18	0	7		0	0	0	0	0	0	0		3	0	31	82					35	15		
8:00 AM	to	8:15 AM	3	0	12	0	6		0	1	0	0	0	0	0		0	0	22	60	23	36	6	17	24	12	67%	33%
8:15 AM	to	8:30 AM	4	0	4	0	7		0	0	0	0	0	0	0		3	0	18	52								
8:30 AM	to	8:45 AM	5	0	2	0	2		0	0	0	0	0	0	0		2	0	11	44								
8:45 AM	to	9:00 AM	0	0	6	0	2		0	0	0	0	0	0	0		1	0	9	49								
9:00 AM	to	9:15 AM	3	0	8	0	2		0	0	0	0	0	0	0		1	0	14	49	17	32	8	9	19	13	59%	41%
9:15 AM	to	9:30 AM	2	0	4	0	1		0	0	0	0	0	0	0		3	0	10	46								
9:30 AM	to	9:45 AM	5	0	4	0	5		0	0	0	0	0	0	0		2	0	16	52								
9:45 AM	to	10:00 AM	3	0	3	0	1		0	0	0	0	0	0	0		2	0	9	53								
10:00 AM	to	10:15 AM	1	0	5	0	1		0	0	0	0	0	0	0		4	0	11	55	33	22	15	18	10	12	45%	55%
10:15 AM	to	10:30 AM	3	0	3	0	7		0	0	0	0	0	0	0		3	0	16	56								
10:30 AM	to	10:45 AM	6	0	0	0	6		0	0	0	0	0	0	0		5	0	17	52								
10:45 AM	to	11:00 AM	2	0	2	0	4		0	0	0	0	0	0	0		3	0	11	46								
11:00 AM	to	11:15 AM	5	0	2	0	1		0	0	0	0	0	0	0		4	0	12	55	26	29	13	13	14	15	48%	52%
11:15 AM	to	11:30 AM	1	0	5	0	6		0	0	0	0	0	0	0		0	0	12	69								
11:30 AM	to	11:45 AM	3	0	0	0	4		0	0	0	0	0	0	0		4	0	11	76								
11:45 AM	to	12:00 PM	6	0	7	0	2		0	0	0	0	0	0	0		5	0	20	83								
12:00 PM	to	12:15 PM	7	0	5	0	7		0	1	0	0	0	0	0		6	0	26	84	36	47	22	14	23	24	49%	51%
12:15 PM	to	12:30 PM	6	0	7	0	2		0	0	0	0	0	0	0		4	0	19	83								
12:30 PM	to	12:45 PM	7	0	4	0	3		0	0	0	0	0	0	0		4	0	18	88								
12:45 PM	to	1:00 PM	4	0	7	0	2		0	0	0	0	0	0	0		8	0	21	91								
1:00 PM	to	1:15 PM	12	0	6	0	5		0	0	0	0	0	0	0		2	0	25	82	22	60	9	13	18	42	30%	70%
1:15 PM	to	1:30 PM	15	0	3	0	3		0	0	0	0	0	0	0		3	0	24	70								
1:30 PM	to	1:45 PM	10	0	6	0	2		0	0	0	0	0	0	0		3	0	21	55								
1:45 PM	to	2:00 PM	5	0	3	0	3		0	0	0	0	0	0	0		1	0	12	50								
2:00 PM	to	2:15 PM	9	0	2	0	2		0	0	0	0	0	0	0		0	0	13	44	15	28	6	9	11	17	39%	61%
2:15 PM	to	2:30 PM	1	0	3	0	3		0	0	0	0	0	0	0		2	0	9	49								
2:30 PM	to	2:45 PM	6	0	5	0	3		0	0	0	0	0	0	0		2	0	16	51								
2:45 PM	to	3:00 PM	1	0	1	0	1		1	0	0	0	0	0	0		2	0	6	47								
3:00 PM	to	3:15 PM	6	0	5	0	4		0	0	0	0	0	0	0		3	0	18	55	28	27	8	20	13	14	48%	52%
3:15 PM	to	3:30 PM	3	0	3	0	3		0	0	0	0	0	0	0		2	0	11	49								
3:30 PM	to	3:45 PM	3	0	1	0	6		0	0	0	0	0	0	0		2	0	12	55								
3:45 PM	to	4:00 PM	2	0	4	0	7		0	0	0	0	0	0	0		1	0	14	72								
4:00 PM	to	4:15 PM	3	0	1	0	4		0	0	0	0	0	0	0		4	0	12	82	39	43	14	25	17	26	40%	60%
4:15 PM	to	4:30 PM	5	0	1	0	6		0	0	0	0	0	0	0		5	0	17	93								
4:30 PM	to	4:45 PM	11	0	10	0	8		0	0	0	0	0	0	0		0	0	29	96								
4:45 PM	to	5:00 PM	7	0	5	0	7		0	0	0	0	0	0	0		5	0	24	81								
5:00 PM	to	5:15 PM	7	0	6	0	6		0	0	0	0	0	0	0		4	0	23	75	37	38	17	20	15	23	39%	61%
5:15 PM	to	5:30 PM	4	0	2	0	8		0	0	0	0	0	0	0		6	0	20	76								
5:30 PM	to	5:45 PM	5	0	6	0	2		0	0	0	0	0	0	0		1	0	14	88								
5:45 PM	to	6:00 PM	7	0	1	0	4		0	0	0	0	0	0	0		6	0	18	110								
6:00 PM	to	6:15 PM	4	0	6	0	9		0	0	0	0	0	0	0		5	0	24	110	40	70	11	29	19	51	27%	73%
6:15 PM	to	6:30 PM	16	0	7	0	5		0	0	0	0	0	0	0		4	0	32	86								
6:30 PM	to	6:45 PM	21	0	6	0	8		0	0	0	0	0	0	0		1	0	36	54								
6:45 PM	to	7:00 PM	10	0	0	0	7		0	0	0	0	0	0	0		1	0	18	18						Average	47% Left	53% Right

APPENDIX C

ACCIDENT DATA

TAN3301-01 HTRIS - ACCIDENT ANALYSIS 06/04/08 15:18:59
Accident Summary Data Requested HWYATRIS

NODE: 713922 53-00625/Gap Terminus/ RADIUS 500 FEET

Date Range	From:	01/31/03	To 01/31/08
Hour Range	From:		To
Day of Week:			
Major Factor		All	
Lighting		All	
Functional Class		All	
Weather		All	
Surface Condition		All	
Vehicle Maneuver		All	
Vehicle Type		All	
Collision Type		All	
Fixed Object		All	
Traffic COntrols		All	

REPORT-ID: TAN3300-01

VIRGINIA DEPARTMENT OF TRANSPORTATION
HTRIS - ACCIDENT SUBSYSTEM

DATE: 08-06-04 15:18:59
USER: HWYATRIS
PAGE: 1

ACCIDENT RECORD LIST FOR INTERSECTION

NODE: 713922 53-00625/Gap Terminus/ DISTANCE: 500 (RADIUS IN FEET)

DOCUMENT NUMBER	YR	MO	DAY	HR	ROUTE ID ID	DIR	VEH TYPE	LIGHT	COLL TYPE	FIXED OBJ	FUNC CLASS	TRAFFIC CONTROL	SURF COND	SEV	#FAT	#PED FAT	#INJ	#PED INJ	$PD
032372624	03	08	08	1200	5300625	SE	03	2	03	00	4	03	01	3	0	0	4	0	10100
032372624							01			00									
040751028	04	02	16	1550	5300625	SE	03	2	02	00	I	03	01	3	0	0	4	0	15000
040751028							01			00									
041671620	04	05	18	1359	5300625	SE	02	2	01	00	I	03	01	4	0	0	0	0	1500
041671620							03			00									
050331679	05	01	22	930	5300625	SE	01	2	02	00	I	03	03	4	0	0	0	0	5500
050331679							03			00									
050400913	05	01	28	950	5300625	SE	02	2	04	00	I	03	01	3	0	0	2	0	4500
050400913							01			00									
050401223	05	01	24	952	5300625	SE	03	2	02	00	I	03	03	4	0	0	0	0	2000
050401223							01			00									
050591956	05	02	14	1106	5300625	SE	01	1	01	00	I	03	04	3	0	0	1	0	1500
050591956							01			00									
050822515	05	03	12	1300	5300625	SE	22	2	02	00	I	03	01	3	0	0	4	0	45000
050822515							22			00									
052510599	05	08	25	413	5300625	SE	05	2	01	00	I	03	01	4	0	0	0	0	16000
052510599							01			00									
053320721	05	11	10	1740	5300625	SE	22	5	01	00	I	06	01	3	0	0	1	0	9500
053320721							01			00									
053411099	05	11	18	910	5300625	SE	22	2	01	00	I	03	01	4	0	0	0	0	1800
053411099							22			00									
061981552	06	06	30	1720	5300625	SE	22	2	01	00	I	03	01	4	0	0	0	0	2000
061981552							03			00									
062561348	06	09	04	1427	5300625	SE	22	2	02	00	I	03	01	4	0	0	0	0	4000
062561348							01			00									
052410864	05	08	20	2103	5300625	SE	01	2	04	00	I	03	01	4	0	0	0	0	2000
052410864							22			00									
062121528	06	07	18	1224	5300625	SE	03	2	04	00	I	06	01	4	0	0	0	0	3800
062121528							01			00									
061651546	06	06	06	1803	5300625	SE	03	2	01	00	I	01	01	4	0	0	0	0	5700
061651546							01			00									
030690163	03	02	27	900	5300625	SE	01	2	04	00	4	06	03	4	0	0	0	0	4500
030690163							01			00									
041771048	04	06	04	1530	5300625	SE	22	2	01	00	I	06	02	4	0	0	0	0	9000
041771048							01			00									
063332017	06	11	15	1727	5300625	SE	01	5	01	00	I	06	01	4	0	0	0	0	2200
063332017							01			00									
072111709	07	07	21	1400	5300625	SE	01	2	04	00	I	06	01	4	0	0	0	0	1350
072111709							01			00									
053250193	05	11	07	1720	5300625	SE	01	5	01	00	I	06	01	3	0	0	1	0	2600
053250193							22			00									
060861083	06	03	07	1924	5300625	SE	01	5	02	00	I	06	01	4	0	0	0	0	12000

ACCIDENT RECORD LIST FOR INTERSECTION

NODE: 713922 53-00625/Gap Terminus/ DISTANCE: 500 (RADIUS IN FEET)

DOCUMENT NUMBER	YR	MO	DAY	HR	ROUTE ID ID	DIR	VEH TYPE	LIGHT	COLL TYPE	FIXED OBJ	FUNC CLASS	TRAFFIC CONTROL	SURF COND	SEV	#FAT	#PED FAT	#INJ	#PED INJ	$PD
060861083							01			00									
070242047	07	01	11	1754	5300625	SE	01	5	01	00	I	06	01	4	0	0	0	0	8000
070242047							01			00									
052991166	05	10	17	1705	5300625	SE	03	2	02	00	I	06	01	4	0	0	0	0	9300
052991166							01			00									
071430926	07	05	15	0	5300625	SE	01	2	01	00	I	06	01	4	0	0	0	0	3000
071430926							22			00									
071620356	07	06	03	1356	5300625	SE	01	2	01	00	I	01	02	4	0	0	0	0	1500
071620356							01			00									

NODE: 713922 53-00625/Gap Terminus/ RADIUS: 500 (FEET)

DAILY ENTERING VEHICLES:	52,191.00				
FATAL ACCIDENTS:	0	PERSONS KILLED:	0	PEDESTRIANS KILLED:	0
INJURY ACCIDENTS:	7	PERSONS INJURED:	17	PEDESTRIANS INJURED:	0
PROPERTY DAMAGE ACCIDENTS:	19	AMOUNT OF PROPERTY DAMAGE:	183,350	TOTAL ACCIDENTS:	26
ACCIDENT RATE:	.27	INJURY RATE:	.18	DEATH RATE:	0.000

REPORT ID: TAN3400-01

VIRGINIA DEPARTMENT OF TRANSPORTATION
HITRIS - ACCIDENT SUBSYSTEM

DATE: 08-06-04 15:19:00
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NODE: 713922 53-00625/Gap Terminus/ RADIUS: 500 (FEET)

COLLISION TYPE	
REAR END	13
ANGLE	7
HEAD ON	1
SIDESWIPE SAME DIR	5
SIDESWIPE OPP DIR	
FIXED OBJ IN ROAD	
TRAIN	
NON-COLLISION	
FIXED OBJ OFF ROAD	
DEER	
OTHER ANIMAL	
PEDESTRIAN	
BACKED INTO	
MISC. OR OTHER	
TOTAL	26

VEHICLE TYPE	
PASSENGER CAR	31
PICK UP TRUCK	2
VAN	9
STRAIGHT TRUCK	
TRACTOR TRAILER	1
TRACTOR DBL TRAILER	
MOTORHOME/RV	
OVERSIZED VEHICLE	
BICYCLE	
MOPED	
MOTORCYCLE	
EMERGENCY VEHICLE	
SCHOOL BUS	
CITY TRANSIT BUS	
INTERCITY BUS	
OTHER	
BUS COMMERICAL+15	
SPEC VEH-FARM	
SPEC VEH-ATV	
SPEC VEH-GOLF CART	
SPEC VEH-LOW SPEED	
TRUCK-SUV	11
TRUCK-3 AXLES	
TRUCK-3 TRAILER	
TRUCK TRACTOR ONLY	
PEDESTRIAN	
NOT STATED	
TOTAL	54

VEHICLE MANEUVER	
GOING STRAIGHT AHEAD	20
MAKING RIGHT TURN	3
MAKING LEFT TURN	9
MAKING U TURN	2
SLOWING OR STOPING	8
STARTING IN TRAFFIC	1
STARTING FROM PARKED	
STOPPED IN TRAFFIC L	8
RAN OFF ROAD - RIGHT	
RAN OFF ROAD - LEFT	
PARKED	
BACKING	
PASSING	
CHANGING LANES	2
OTHER	
ENTER ST PARK LOT	
NOT STATED	1
TOTAL	54

FIXED OBJECT	
BANK OR LEDGE	
TREES	
UTILITY POLE	
FENCE	
GUARD RAIL	
PARKED VEHICLE	
HIGHWAY STRUCTURE	
SIGNS/SIGNALS	
CUSHION DEVICE	
OTHER	
JERSEY WALL	
BUILDING/STRUCTURE	
CURB	
DITCH	
OTHER FIXED OBJECT	
OTHER TRAFF BARRIER	
TRAFF SIGN SUPPORT	
MAILBOX	
NOT STATED	54
TOTAL	54

WEATHER CONDITION	
CLEAR	20
CLOUDY	
FOG	
MIST	2
RAINING	1
SNOWING	2
SLEETING	1
SMOKE - DUST	
OTHER	
BLOWING DIRT,SNOW	
SEVERE CROSSWINDS	
NOT STATED	
TOTAL	26

MAJOR FACTOR	
DR/PED HANDICAP	
DR/PED UNDER INFLU	
DRIVER SPEEDING	
DR/PED INATTENTION	25
VEHICLE DEFECTIVE	
WEATHER VISIBILITY	
ROAD DEFECTIVE	
ROAD SLICK	1
NOT STATED	
MISCELLANEOUS	
TOTAL	26

PROPERTY DAMAGE	
TOTAL	183350
2003	14600
2004	25500
2005	99700
2006	29700
2007	13850
2008	

	TOTAL
TOTAL ACCIDENTS	26
FATAL ACCIDENTS	
INJURY ACCIDENTS	7
PROP. DAMAGE ACCIDENTS	19
NUMBER KILLED	
NUMBER INJURED	17
PEDESTRIANS KILLED	
PEDESTRIANS INJURED	

LIGHTING	
DAWN	1
DAYLIGHT	20
DUSK	
DARKNESS (LIGHTED)	
DARKNESS (NOT LIGHTED)	5
DARKNESS-UNKN ROAD LIGHT	
UNKNOWN	
NOT STATED	
TOTAL	26

SURFACE CONDITION	
DRY	20
WET	2
SNOWY	3
ICY	1
MUDDY	
OILY	
OTHER	
NATURAL DEBRIS	
WATER-STANDING,MOVING	
SLUSH	
SAND,DIRT,GRAVEL	
NOT STATED	
TOTAL	26

DAY OR DAWN & WET	2
DAY OR DAWN & DRY	15
NIGHT OR DUSK & WET	
NIGHT OR DUSK & DRY	5

VEHICLE DIRECTION	
NORTH	6
EAST	14
SOUTH	2
WEST	32
NOT STATED	
TOTAL	54

NODE: 713922 53-00625/Gap Terminus/ RADIUS: 500 (FEET)

	TOTAL	2003	2004	2005	2006	2007	2008
TOTAL ACCIDENTS	26	2	3	11	6	4	
FATAL ACCIDENTS							
INJURY ACCIDENTS	7	1	1	5			
PROP. DAMAGE ACCIDENTS	19	1	2	6	6	4	
NUMBER KILLED							
NUMBER INJURED	17	4	4	9			
PEDESTRIANS KILLED							
PEDESTRIANS INJURED							
LIGHTING							
DAWN	1			1			
DAYLIGHT	20	2	3	8	4	3	
DUSK							
DARKNESS (LIGHTED)							
DARKNESS (NOT LIGHTED)	5			2	2	1	
DARKNESS UNKNOWN RD LIGHTING							
UNKNOWN							
NOT STATED							
TOTAL	26	2	3	11	6	4	
SURFACE CONDITION							
DRY	20	1	2	8	6	3	
WET	2		1			1	
SNOWY	3	1		2			
ICY	1			1			
MUDDY							
OILY							
OTHER							
NATURAL DEBRIS							
WATER-STANDING,MOVING							
SLUSH							
SAND,DIRT,GRAVEL							
NOT STATED							
TOTAL	26	2	3	11	6	4	
DAY OR DAWN & WET	2		1			1	
DAY OR DAWN & DRY	15	1	2	6	4	2	
NIGHT OR DUSK & WET							
NIGHT OR DUSK & DRY	5			2	2	1	
VEHICLE DIRECTION							
NORTH	6	2		2		2	
EAST	14	1	3	4	4	2	
SOUTH	2			2			
WEST	32	1	3	15	9	4	
NOT STATED							
TOTAL	54	4	6	23	13	8	

REPORT-ID: TAN3400-03

VIRGINIA DEPARTMENT OF TRANSPORTATION
HTRIS - ACCIDENT SUBSYSTEM
TOTAL ACCIDENTS BY DAY OF WEEK AND HOUR OF DAY

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NODE: 713922 53-00625/Gap Terminus/ RADIUS: 500 (FEET)

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY	UNKNOWN
6	5	1	4	5	4	1	0

00:00 - 00:59	0
01:00 - 01:59	0
02:00 - 02:59	0
03:00 - 03:59	0
04:00 - 04:59	1
05:00 - 05:59	0
06:00 - 06:59	0
07:00 - 07:59	0
08:00 - 08:59	0
09:00 - 09:59	5
10:00 - 10:59	0
11:00 - 11:59	1
12:00 - 12:59	2
13:00 - 13:59	3
14:00 - 14:59	2
15:00 - 15:59	2
16:00 - 16:59	0
17:00 - 17:59	6
18:00 - 18:59	1
19:00 - 19:59	1
20:00 - 20:59	0
21:00 - 21:59	1
22:00 - 22:59	0
23:00 - 23:59	0
UNKNOWN	1

APPENDIX D

TABLE 4C-1 (MUTCD): WARRANT 1, EIGHT-HOUR VEHICULAR VOLUME

Table 4C-1. Warrant 1, Eight-Hour Vehicular Volume

Condition A—Minimum Vehicular Volume									
Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1	1	500	400	350	280	150	120	105	84
2 or more	1	600	480	420	336	150	120	105	84
2 or more	2 or more	600	480	420	336	200	160	140	112
1	2 or more	500	400	350	280	200	160	140	112

Condition B—Interruption of Continuous Traffic									
Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1	1	750	600	525	420	75	60	53	42
2 or more	1	900	720	630	504	75	60	53	42
2 or more	2 or more	900	720	630	504	100	80	70	56
1	2 or more	750	600	525	420	100	80	70	56

[a] Basic minimum hourly volume.
[b] Used for combination of Conditions A and B after adequate trial of other remedial measures.
[c] May be used when the major-street speed exceeds 70 km/h or exceeds 40 mph or in an isolated community with a population of less than 10,000.
[d] May be used for combination of Conditions A and B after adequate trial of other remedial measures when the major-street speed exceeds 70 km/h or exceeds 40 mph or in an isolated community with a population of less than 10,000.